DOCUMENT RESUME

ED 289 794 SO 018 690

TITLE	The Mini-Economy: Integrating Economics into the Elementary Curriculum.
INSTITUTION	Indiana State Dept. of Education, Indianapolis.
PUB DATE	Jun 86
NOTE	82p.; Photographs will not reproduce well.
AVAILABLE FROM	Indiana Dept. of Education, OSA, Room 229 State House, Indianapolis, IN 46204 ($4.00 each; over 25, $3.50 each).
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Economics Education; Elementary Education; *Elementary School Curriculum; Experiential Learning; Instructional Materials; Learning Activities; *Simulation; *Social Studies

ABSTRACT

The focus of this guide is to simulate real world economic activity in the classroom by using a form of economics instruction called a " mini-economy." In a mini-economy, students earn play money in a variety of ways and spend it at a class store or class auction. Students apply for classroom jobs, run businesses, pay taxes, buy rental properties, and make investments. Chapter one of the guide deals with the effectiveness of using the mini-economy in economics instruction. Chapter two presents steps for establishing the mini-economy, such as: (1) designing the classroom money; (2) determining what items and privileges the money will buy; (3) determining how to distribute items and class privileges; and (4) deciding how students will earn the money. After the mini-economy has been established, chapter three illustrates ways of expanding it, such as establishing banks, insurance companies, and real estate companies. Chapter four deals with concerns that teachers may have about carrying out economic activities in the classroom. Resources for implementing the mini-economy are: (1) a 12-item bibliography of curriculum material; (2) a glossary of economic terms; (3) suggested models for inservice; and (4) reproducible mini-economy aids. (SM)

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THE MINI-ECONOMY

INTEGRATING ECONOMICS INTO THE ELEMENTARY CURRICULUM

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THE MINI-ECONOMY

INTEGRATING ECONOMICS INTO THE ELEMENTARY CURRICULUM

Indiana Department of Education
H. Dean Evans, Superintendent

June, 1986

Table of Contents

Introduction — Mini economies v

Message from the Superintendent vii

Chapter 1 Using a Mini-economy 1

Chapter 2 Starting a Mini-economy 11

Chapter 3 Expanding the Mini-economy 23

Chapter 4 Concerns and Comments 37

References 45

Bibliography of Curriculum Materials 47

Glossary of Economic Terms 51

Suggested Models for Inservice 55

Appendix A: Reproducible Mini-economy Aids 57

Introduction

The mini-economy form of instruction is a welcome addition to the elementary curriculum. It provides much needed instruction in basic economics, decision-making, and living skills; and it does so in a dynamic and motivating way that encourages creative thinking and problem solving. The mini-economy motivates both teachers and students and encourages parental and community involvement in the local schools. It enjoys the support of most administrators, can be very economical to implement, and can be very effective in promoting classroom discipline and responsible study habits. Properly implemented, a mini-economy can turn an elementary classroom into a dynamic learning environment where students learn important economics principles and application of basic skills learned in other subject areas.

The mini-economy is not a totally new form of instruction. For years, some teachers have instituted various kinds of mini-economies, usually in the form of classroom banking or money (token) systems. At present, although mini-economies are not widespread, their use is growing. It is hoped that this booklet will encourage more teachers to use this valuable and effective form of instruction and that it will give new ideas and practical advice to those teachers who are already doing so.

Mini-economy

Integrating Economics into the Elementary Curriculum

The Indiana Department of Education
H. Dean Evans, Superintendent

John A. Harrold, Director
Division of Curriculum

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The Department of Education is grateful to the following individuals for their helpful comments and suggestions on the content of this publication.

Isobel Arvin	Crawfordsville Community Schools
Dr. Stan Bennett	University of Maryland
Linda Bentley	Greater Clark County Schools
Marsha Foley	Indianapolis Public Schools
Cynthia Gregory	Mt. Vernon Community Schools
Jo Ellen Hubbard	MSD of Washington Township
Dr. Kathy Steele	Crawfordsville Community Schools
Dr. Michael Watts	Purdue University

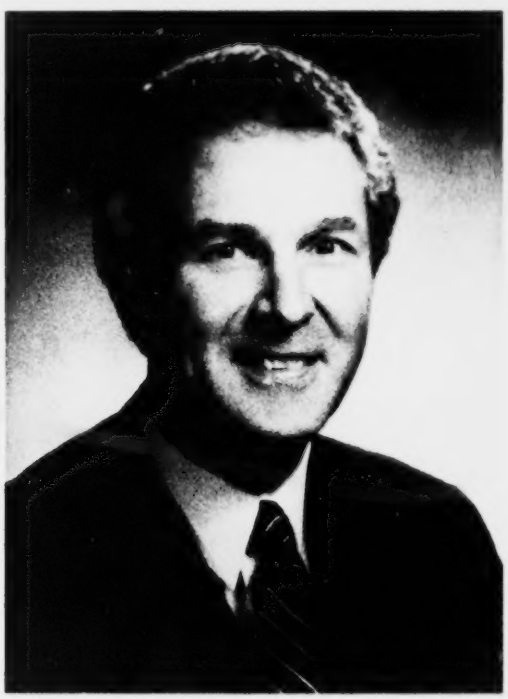
A special note of gratitude is extended to the principle editor and staff artist of this publication, Phyllis J. Alexander and Dan Hawkins, respectively. Editing, graphics, and printing were accomplished by the Division of Publications.

A Message from H. Dean Evans
Superintendent of Public Instruction

Today's rapidly changing and highly interdependent society requires, perhaps as never before, a learned, productive, and educationally-motivated citizenry. The mini-economy is a method of instruction which prepares students to meet the requirements of such a society.

The mini-economy is an effective means of teaching important economic principles and life skills in the early learning years. While learning these principles and skills, students apply the knowledge and expertise learned in other disciplines. This results in an integrated, and consequently, more relevant curriculum. Students can become genuinely enthusiastic about learning.

One of the goals of the Indiana Department of Education is to promote innovation in teaching and learning. The mini-economy is one viable method of accomplishing this goal. To that end, the Department hopes that Indiana's teachers will find this booklet useful.



H. Dean Evans

JUDY'S
CALENDAR
SHOP
MAY
MAY

Chapter One
Using a Mini-Economy

What is a Mini-Economy?

The mini-economy is a form of economics instruction in which students participate in a classroom economy in order to simulate real world economic activity.

In a mini-economy, which is described in more detail in later chapters, students earn play money in a variety of ways and spend it at a class store or class auction. Although mini-economy activities can vary widely, students typically apply for classroom jobs, run businesses, pay taxes, buy rental properties, and make investments. The mini-economy is, in effect, a miniature economy operating within the regular classroom.

Why Use a Mini-Economy?

There are at least five compelling reasons for using a mini-economy. First, an effective mini-economy **helps to fill the void in the elementary curriculum created by the virtual lack of any economics instruction.** In an extensive random survey of economic literacy in Indiana, Michael Watts (1985, p. 194) discovered that an average of only four percent of the elementary teachers planned to spend an hour or more per week teaching economics separately or in conjunction with other subjects. The mini-economy provides many excellent opportunities for teaching important economic concepts of scarcity, opportunity cost, money, specialization, supply and demand, trade, profit, and inflation, Furthermore, in a mini-economy these concepts do not have to be taught in isolation, but can be presented within a realistic integrated setting.

A second reason for using the mini-economy is that it **integrates easily into other subject areas.** For teachers concerned about the lack of instructional time in an already crowded elementary curriculum, this is a very important consideration. Time spent on the mini-economy is considered part of the social studies curriculum; however, many teachers consider mini-economy activities as a part of their instruction in mathematics, art, music, and language arts.

For example, keeping savings and checking accounts, monitoring investments, and engaging in economic transactions provide many opportunities for students to apply basic mathematics skills. Running a class business also requires students to apply mathematics skills. Students must compute costs, sales, profits, interest, and dividends. Mathematics lessons and assignments can center around these very concepts.

Mini-economy activities are also ideal for applying fine arts skills. Many items produced by classroom businesses, such as bookmarks, pot holders, greeting cards, and decorations, make excellent art projects. Students develop their artistic skills when designing signs and posters for advertising. Musical creativity is encouraged as students write advertising jingles or compose songs that describe their work efforts. If video equipment is available, their fine arts productions can be taped and presented to other classrooms.

Mini-economy activities strengthen language arts skills. Students frequently write ads and articles for the school newspaper, or complete classroom job applications (Appendix A, p. 69). Writing thank-you notes to people in the community who become involved in the mini-economy provides valuable letter writing practice. Vocabulary, spelling, and writing themes can also center around the mini-economy activities.

A third reason for using the mini-economy is that it **conforms to what we know about learning theory.** Marilyn Kourilsky (1974, p. 2-3) identifies three important learning principles that are applied by participation in a mini-economy.

1. **Real** as opposed to **vicarious** experience
2. **Active** rather than **passive** roles in the learning situation
3. **Actual decision making** and bearing the consequences of those decisions

Shedding their typical role of being passive listeners, students become active participants and decision-makers in an economic system that is very real to them. They do not merely **learn about** an economic system — they actually **experience** one. In doing so, they have the opportunity to use many of the higher level cognitive skills, such as application, analysis, synthesis, and evaluation, which are sometimes overlooked in traditional instuction.

Two experiences in an Indiana fifth-grade classroom will help illustrate these points. Only one student in the class owned one of the small, hand-held electronic football games which were very popular at that time. He discovered that he could rent the game to his classmates before school and during recess.

Classroom businesses are often introduced in more advanced mini-economies. These students decided to operate a candy business in Mrs. Isobel Arvin's Crawfordsville classroom.

Demand was so great that he charged high rental fees and earned a hefty income. Unfortunately, the good times did not last. Seeing his profits, his classmates requested similar games for Christmas. After the holidays, the supply of electronic games mushroomed. To make matters worse, the newer games were much more popular than his old one. To compete, he had to cut his rental fees dramatically. This student experienced, in a way very real to him, the effects of supply, demand, and competition on prices and profits.

Another example concerned the classroom insurance companies. The students could buy insurance from the teacher to protect themselves from three "accidents" that occurred each week. When pairs of students were allowed to start their own companies, many student partnerships quickly formed. Dreams of large profits were not realized, however, as company owners discovered that, in order to gain enough customers, they were forced to lower premiums.

There just were not enough students to go around. One company started by two less venturesome students did not have many clients; nevertheless, these few clients consistently had "accidents." The two unfortunate owners were forced to use their own savings to cover these high accident payments, and were soon driven out of business. They had taken a risk and it did not work out as they had anticipated.

In these two examples, students were involved in situations which illustrated many economic concepts. They had to make economic decisions and live with the results. The learning resulting from these experiences goes beyond that which students learn from typical instruction.

A fourth reason for using a mini-economy is that it **emphasizes the systematic nature** of the economy. By participating in an ongoing classroom economy, students get a better feel for how the overall economic system fits together. Michael Watts and William Walstad (1985, p. 14) have noted that even students who may understand some basic economic concepts may not have an accurate view of the economy as a whole.

> There is a disturbing evidence that, when students are exposed to economics instruction through a K-12 infusion approach, they do not acquire an overview of how individual concepts fit together into a meaningful whole. This situation is most apparent when students have not taken a capstone economics course.

The mini-economy helps to alleviate this lack of understanding. One teacher who used a mini-economy wrote:

"The unit does require a lot of time and work, but it was very fulfilling and worthwhile in my class, and gave me a concrete example to relate economics to. **Students were able to understand because they were seeing a system work.**"

A final reason for using the mini-economy is that it **is a tremendous motivator.** Almost without exception, students enjoy participating in a mini-economy. It adds an element of realism not present in much of their previous learning experience. Day-to-day classroom decisions result in very visible and real consequences, as students consider, analyze, and react to new situations and dilemmas. In doing so, students use the basic academic skills they have mastered during their years in school.

The mini-economy is also a motivator of teachers. Its implementation will have its share of challenges and difficulties; but, what worthwhile undertaking does not? Teachers discover much enjoyment and professional satisfaction in establishing mini-economies, and frequently persuade their colleagues to get involved. The mutual support and exchange of ideas among these teachers provide healthy and motivating professional interaction.

This quote by economist Gary Bach (1979, p. 16) illustrates this point: "People who are highly motivated to learn generally do learn; those who are not motivated seldom do. . .Without effective student motivation, nothing else matters much." The Task Force on Education for Economic Growth (1983, p. 27) put it even more bluntly: "A concept of curriculum improvement that focuses on cognitive goals, but ignores motivation is destined to fail."

Types of Mini-Economies

No two mini-economies are ever exactly alike. They may vary considerably, depending upon the individual teacher and the particular instructional situation. Despite this variation, it is still possible and helpful to identify two basic criteria which help to classify the different types of mini-economies.

Making folders to sell to classmates, these first graders at Mt. Comfort Elementary School are getting ready for a unit on Japan. The folders will be stuffed with handouts used during the unit, which includes paper folding and Japanese dancing.

Teacher-Directed vs. Student-Directed

The first criterion addresses the extent to which the economic activity within the mini-economy is either **teacher-directed** or **student-directed**. In a teacher-directed mini-economy, the teacher determines the specific businesses, jobs, and governing bodies that will exist. The students then operate within these structures.

Teacher-directed mini-economies can be further identified by considering to what extent the teachers use economic activity as a vehicle for classroom management. These types of mini-economies, known in the economic education literature as **token economies**, have their intellectual roots in behavioral psychology. In a typical token economy, the teacher directs student behavior by paying (rewarding) students with play money. Students might be given $5.00 for each assignment completed on time or for a neat and tidy desk at the

end of the school day. There may be class stores, banks, and other types of economic activity; but the differentiating factor in the teacher-directed token economy is payment for desired student behavior. Mini-economy programs which are in part token economies, include Richmond's (1973) *Micro-Society*, Frank's (1981) *Miniature Towns*, Gerlach's (1985) *Maple Program*, and this publication's *Mini-Economy*. Bennett's (1984) *Micro-Place* is an example of a teacher-directed mini-economy that avoids the behavior management aspects of a token economy.

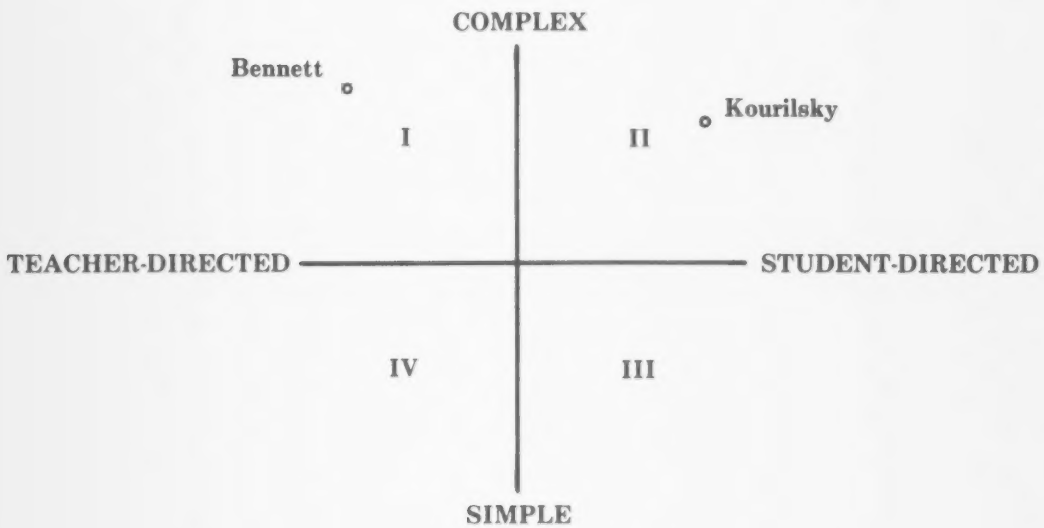
Student-directed mini-economies can be quite different. In this type of mini-economy, students are influential in determining how the classroom economy operates. The teacher takes a more passive role, in some cases assuming the role of a "paid" consultant. It is the students who typically determine what, if any, types of behavior will earn income, what laws will govern the economy, and what products and services will be produced and sold by the student-operated businesses.

The Mini-Society, developed by Kourilsky (1983), is designed along these lines. The teacher's main function is to help students analyze the predictable economic dilemmas that commonly occur within the mini-economy. It is this analysis which constitutes the backbone of formal economics instruction. A dilemma frequently encountered by students is whether or not anyone will want to buy a product they want to produce [Kourilsky, (1983, p. 98)]. In a debriefing session, the teacher analyzes this problem with the students, explaining to them the value of a market survey and how to perform one. This leads naturally to a discussion of demand and the factors which change demand.

Bankers at Dayton Elementary School are checking the student banking records before entering them in the computer.

Degree of Complexity

The second basic criterion that can be used to classify mini-economies is their **degree of complexity**. Some are very simple, involving minimal economic activity. More complex mini-economies may include banks, real estate agencies, insurance companies, and many other businesses. There may also be a tax-financed class government, which could include a legal system, a legislative body, police protection, and a postal service. The diagram below may be helpful in identifying various types of mini-economies.



To what extent a mini-economy is teacher or student-directed is indicated on the X axis, the degree of complexity on the Y axis. Using these criteria, one can easily "plot" a mini-economy in the appropriate quadrant. Kourilsky's *Mini-Society* is placed in quadrant II, indicating a rather complex, student-directed economy. Bennett's (1984) a *Micro Place* falls higher in quadrant I, indicating a rather complex, teacher-directed economy.

Is one type of mini-economy better than another? The answer depends on one's own preferences and values. Teachers wanting to emphasize economic content and active decision-making might prefer a more complex mini-economy. However, implementing a complex mini-economy requires significant time and commitment. Teacher training is usually required, and two to three hours time each week must be devoted to mini-economy activities. If this is neither desirable nor practical, a simpler mini-economy is preferable.

Are teacher-directed mini-economies better than student-directed ones? The answer to this question depends largely on one's own instructional goals and preferences. Some of the limited amount of research that exists (Kourilsky and Hirshliefer, 1976) indicates that students who participate in student-directed mini-economies develop more autonomy, assertiveness, and economic understanding than students who participate in teacher-directed token economies. However, a student-directed economy may not develop the degree of realism and complexity that a teacher might desire. A teacher-directed token economy provides a powerful tool for classroom management; and because it is relatively easy to implement, it is practical for most learning situations.

It is important to realize that most mini-economies do not exhibit definite characteristics which define them precisely as either student or teacher-directed. There are usually elements of both. Teachers will want to develop mini-economies which fit their own needs and instructional preferences. As needs or preferences change, the teacher may adapt accordingly. Implementing any mini-economy will be a challenging and worthwhile experience, as well as a valuable addition to the traditional elementary curriculum.

AUCTION
TODAY
lost and found it
stamps and coi
candy
plants
used clothing
used records a
posters
rds
, erasers
supplies
alendars
nants
e books

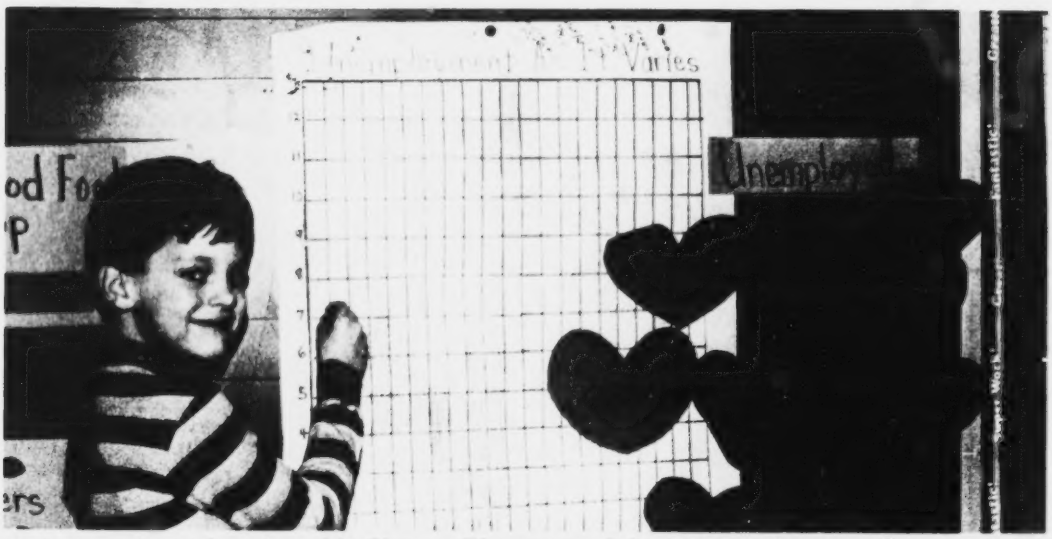
Chapter Two
Starting a Mini-Economy

Five Basic Steps

Teachers are often enthusiastic about starting mini-economies in their own classrooms, but are sometimes overwhelmed by the seemingly complex nature of the mini-economy. The guidelines presented here, while not the only way to implement a mini-economy, should be very helpful for any teacher who wants to take that first step in establishing this unique form of instruction in the classroom.

Although the exact sequence may vary, a program should begin with these five steps:

Step 1: Design the Classroom Money
Step 2: Determine What Items and Privileges the Money Will Buy
Step 3: Determine How to Distribute Items and Class Privileges
Step 4: Decide How Students Will Earn the Money
Step 5: Do It!

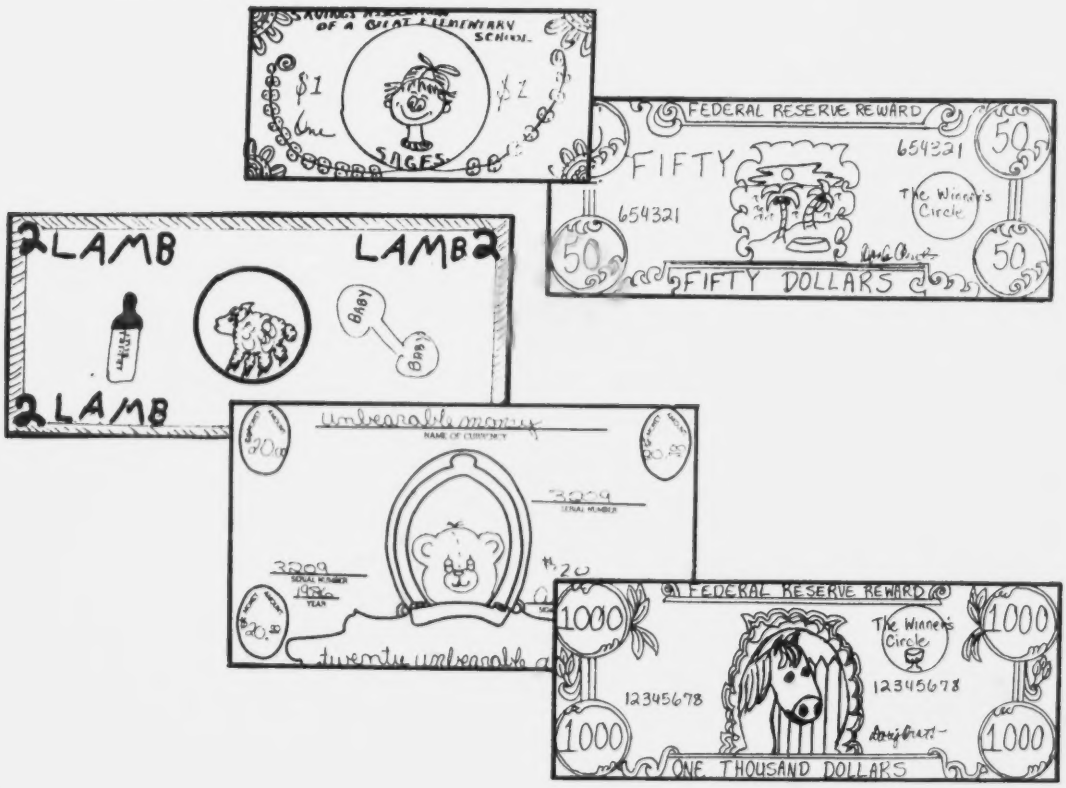


A first grade student from Mt. Vernon Elementary School charts the unemployment in his classroom on a bar graph.

Step 1: Design the Classroom Money

The production and consumption of goods and services in modern economic systems is helped immeasurably by the use of money. The classroom economy will be no different — some form of play money will be necessary. It can be designed by the teacher or by a more "artistic" person, perhaps the school art teacher. Another possibility is to let students design the currency and then vote on the design they like best. Some publications, such as *Economy Size* or *Scholar Dollars,* include samples of money that may be copied for class use. Samples are also shown in Appendix A of this publication.

It is not absolutely necessary to use "dollars." Students can create other names for their currency. One fifth grade student designed a currency using sheep as a theme, the different money denominations being ewes, lambs, wools, and rams. Some teachers like to use metal fender washers to simulate gold and silver coins. These can be found at local hardware stores. A request to the president of the company producing the washers will usually result in a reasonable number being donated to the class. Using these "**real**" coins is always a favorite with the children, and using them with paper currency (gold and silver certificates) helps to illustrate the original link between paper money and the precious metals.



Step 2: Determine What the Money Will Buy

Money has value because it can be used to purchase scarce goods and services. Likewise, in the classroom mini-economy, students must be able to use their money to purchase "goods and services" that they truly value. If this is not the case, the students will lose interest in earning the play money and the mini-economy will cease to function properly.

The things that students value in a typical classroom can be grouped into two basic categories — tangible items and class privileges. Some examples of these are listed below.

Tangible Items: These are flea market kinds of items collected by the teacher or students. They include:

lost and found items
stamps and coins
candy
plants
used clothing and books
used records and athletic equipment
posters
baseball cards and football cards
pens, pencils, erasers
other school supplies
small cars
small desk calendars
pennants
free books from student book clubs

Class Privileges: These types of special privileges are popular:

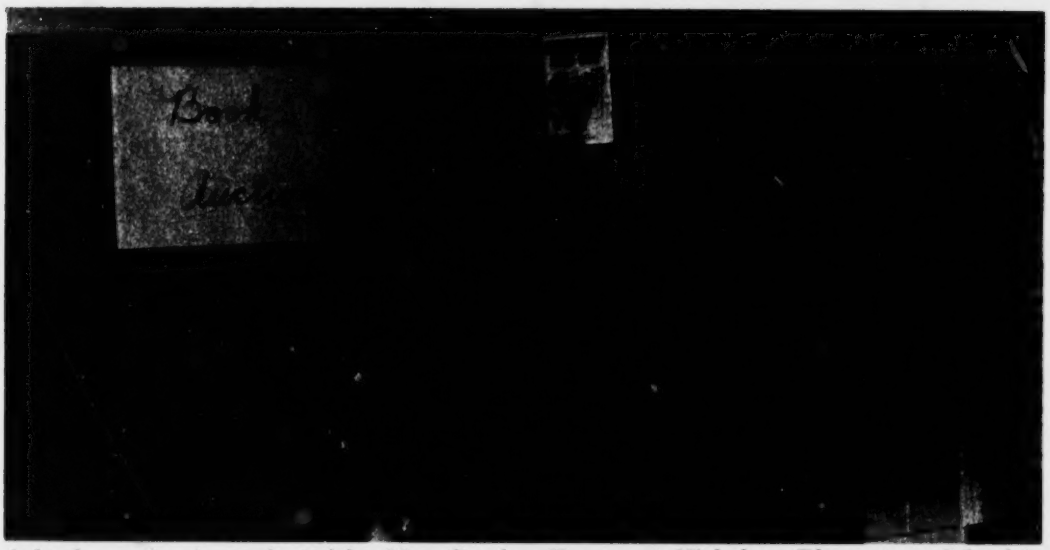
line leader
class messenger
library passes
extra recess period
cleaning the chalkboards
choosing recess activities
time on the computer
writing on the chalkboards
getting the class ball at recess
a cola in the class after recess
lunch at restaurant with teacher
supper at teacher's home
making bulletin boards
being kickball or softball captain
moving desk within classroom
taking attendance

These lists are not definitive; each teacher will be able to add to them, depending upon the particular classroom situation.

Although some of the class privileges, especially lunch with the teacher, will remain popular throughout the school year, students often like the tangible

items best. One child's junk is definitely another's treasure. Some teachers encourage the students to bring unwanted items from home, or the teacher acquires such items at garage sales or flea markets. Other teachers in the building are another good source. It is neither difficult nor expensive to gather quite a collection of items that are valuable to the students.

As the school year progresses, several of the more mundane privileges (passing out papers, cleaning the boards, etc.) may become less attractive to the students. If this happens, treat the tasks as jobs and pay the students for doing them. There will still be enough privileges and tangible items that the students will value.



A book auction is conducted by Mrs. Carolyn Horney at Nicholson Elementary School in Crawfordsville.

Step 3: Determine How To Distribute Items and Class Privileges

Two basic ways to distribute items and privileges are:

CLASS AUCTIONS: This is an effective and motivating method to use. As in a regular auction, students make bids to determine who gets the offered items and privileges. An interesting possibility is to invite an auctioneer to conduct some of the class auctions. This generates much excitement and adds an element of realism to the auction. The auctioneer can also explain some of the intricacies of a real auction. Teachers who have done this have found it very successful.

Since an auction can sometimes become rather hectic, these tips should be helpful:

Display the Items/Privileges Before the Auction Takes Place. This allows the students to examine carefully what will be offered for sale and lets them plan accordingly.

Let Students Help. During an auction, it is necessary to record the prices of items sold and to collect payments. Student helpers (possibly paid) can assume these responsibilities, freeing the teacher to concentrate on the actual bidding and to keep reasonable order. A simple auction slip (Appendix A, p. 74) helps avoid confusion and provides a record of what actually took place during the auction.

Establish Auction Rules. It is necessary to define some rules for students to follow during an auction. These will vary from teacher to teacher. Some teachers require students to state their bids out loud. Although this can become rather noisy, it forces students to commit themselves to a bid, instead of indecisively raising and then lowering their hands at the last minute. Require the students to bid in dollar increments which are large enough to prevent time-consuming bidding wars.

Do Not Hold Auctions Too Frequently. The frequency of the auctions is up to the teacher. Bi-weekly or monthly auctions are usually satisfactory, although some teachers prefer only two or three large auctions during the entire semester.

CLASS STORES: This is another effective way to distribute items and privileges. At a class store, students can buy necessities, such as pencils, pens, or paper, and a variety of other items and privileges. Unlike the class auction, it will be necessary to set a price for each item in the store. Students should be involved in this. They can make suggestions or even make the price decisions. This provides an excellent opportunity to discuss supply, demand, and prices. Students enjoy the challenge of finding the "right" price.

Students may want to operate their own stores. Many goods and services can be sold which classmates will want to purchase. Various possibilities are listed under Step Four, and are discussed in more detail in Chapter Four.

Step 4: Decide How Your Students Will Earn Money

Here teachers are limited only by their imaginations. Some prefer the token economy approach. To improve classroom management, they pay students for various types of behavior, such as neat work, completed assignments, clean desks, or quiet hall behavior. Others prefer less teacher control and direction. Their students earn income by doing classroom jobs or by creating classroom businesses. Many teachers combine approaches. Their students earn money for good behavior, as well as for jobs and businesses. There are many possibilities. Some are listed below:

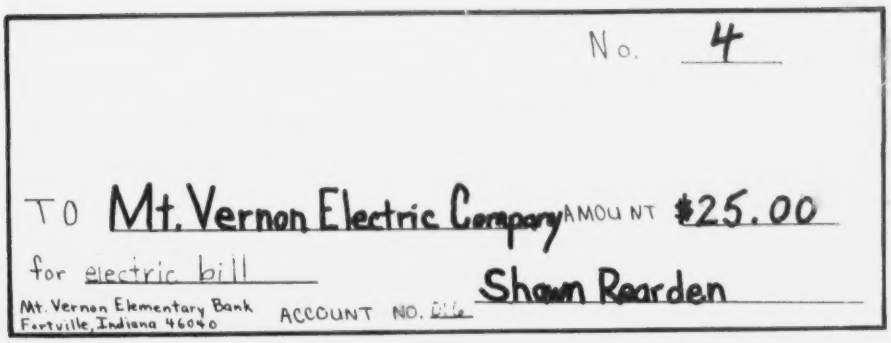
Classroom Management Ideas

- Clean desk, floor, and locker
- All work done on time
- Quiet, straight lines in the halls
- A's on tests and quizzes
- Neat writing
- Reading books ($ per page; it helps to get a written promise and to briefly ask a few questions about the plot)
- Improvement in work
- Winning class instructional games
- Extra credit work
- Studying quietly

Classroom Businesses: Producing Goods or Services

Goods:

- Paperweights
- Plants
- Art paintings or drawings
- Flower seeds
- Christmas, valentine, or birthday cards
- Class scrapbook or photo album
- Bank checks
- Paper wallets
- Paper airplanes
- Class or school newspaper
- Popcorn or candy
- Craft items (potholders, corsages, vases, hotplates, puppets, etc.)


No. 4

TO Mt. Vernon Electric Company AMOUNT $25.00

for electric bill

Shawn Rearden

Mt. Vernon Elementary Bank
Fortville, Indiana 46040 ACCOUNT NO. Bills

Services:

- Tutoring
- Postal
- Photography
- Singing telegrams
- Desk cleaning
- Music or dancing lessons
- Manicures
- Insurance (auto, medical, absence, unemployment)
- Banks
- Advertising agency
- Accounting agency

Classroom jobs

- Class messenger
- Janitor (clean bookshelves, board and erasers, etc.)
- Attendance taker
- Policeman/judge
- Bank teller
- Auctioneer
- Treasurer
- Real estate title recorder
- Postal clerk
- Librarian
- Plant caretaker
- Tax collector
- Restroom monitor
- Clean desk inspector
- Class photographer
- Audio Visuals technician
- Job monitor
- Homework monitor (keeps track of assignments of absent students)
- Insurance agent

Encourage students to devise other ways to earn income. This encourages creativity and keeps interest levels high. Many of the students who have problems in academic areas demonstrate good business savvy. While they might not earn much income by excelling in their studies or completing assignments, they will find other clever ways to earn money if given the opportunity.

Also, give students a reasonable amount of freedom to trade and barter in "non-official ways." Much intuitive learning takes place as students haggle, make decisions, and live with the opportunity costs of these decisions in their daily experiences.

Although some teachers pay their students large amounts of money for specific classroom jobs or certain behavior, it is wise to keep payments to a realistic level. Parents might object if their child earns $1,000 a day for a clean desk or for a completed homework assignment. They could argue that this does not accurately reflect the value of $1,000.

Step 5: Do It

The four steps described above provide enough information to start a mini-economy. The last step is simple — do it! However, take this one important word of advice — **do not try to do too much too quickly.** It simply is not necessary. Start by announcing to the class that you are going to help them become better citizens and workers by paying them for various behaviors and/or jobs. Discuss or list various possibilities and how much each is worth. It is effective to display a wad of money during this discussion. The room will soon be buzzing with excitement, and before long, someone will ask the next logical question, "But what can we buy with our money?" Now is the time to explain the class auction or store. Display various types of items that will be sold, and explain the various class privileges that will be offered.

At this point, the students will be highly motivated and will want to start earning money immediately. Lay out any other desired guidelines and begin.

Remember, do not expand the mini-economy too quickly. It is best to start simply and then expand gradually at a pace that is manageable for the classroom. A class bank, with checking and/or savings accounts, and bank employees is a natural second step. Insurance, real estate, a postal system, and other businesses may follow. These aspects of an expanded mini-economy are explained in more detail in the next chapter.

Other Considerations

Encourge another teacher in the building to establish a mini-economy. This allows the sharing of creative ideas and the discussion of successes and failures. Also, working together allows teachers to share dittos and forms that are common to both mini-economies.

It is helpful to keep in touch with teachers in other school corporations who are doing mini-economies. One interesting way of doing this is to encourage the students to be pen pals. They will enjoy sharing ideas and mini-economy experiences with each other, while sharpening their letter writing skills.

For various reasons, introductory economics was a subject many teachers avoided during college. Naturally, they tend to feel inadequate about their economics knowledge. Even so, a weak or non-existent economics background need not hinder teachers from initiating a mini-economy. One can do some independent economics study. This is not as difficult as it may sound, especially since a comprehensive knowledge of the discipline is not necessary when teaching basic concepts to elementary students. Neither is it necessary to study complicated economics textbooks. Simpler materials are available. For example, the Joint Council on Economic Education has produced the *Master Curriculum Guide*, a series of booklets that identify and explain basic economics concepts.

Pam Miller's and Sarah Walker's second grade students at Indianapolis Public School #49 shop in the class store.

An even better way to increase one's confidence in economics is to attend a summer workshop. College and university centers of economic education throughout the country offer workshops each year. Teachers are taught basic economics and are exposed to many excellent curriculum materials. Participation also gives teachers the opportunity to meet colleagues who are interested in integrating economics into the curriculum. The workshops are usually worth two or three hours of academic credit and the tuition is often free.

Parents almost always strongly support the program. They are understandably impressed when talk at the evening meal revolves around subjects which "they did not learn about until high school." It is not uncommon for parents to encourage the expansion of the mini-economy program to other grades.

The generous support for the mini-economy from the local community is also encouraging. Business people are eager to visit classrooms and will often provide teaching materials and supplies. Labor representatives can also help. Some teachers have asked carpenters to help the class build simple structures for the store or bank.

The mini-economy is a dynamic and effective form of instruction which can easily be integrated into the curriculum. True, it will require extra work on the part of the teacher, especially at the beginning. After the economy is up and running, teachers will be surprised how smoothly it operates and how minimal the extra work is — especially if enough responsibility is given to the students.

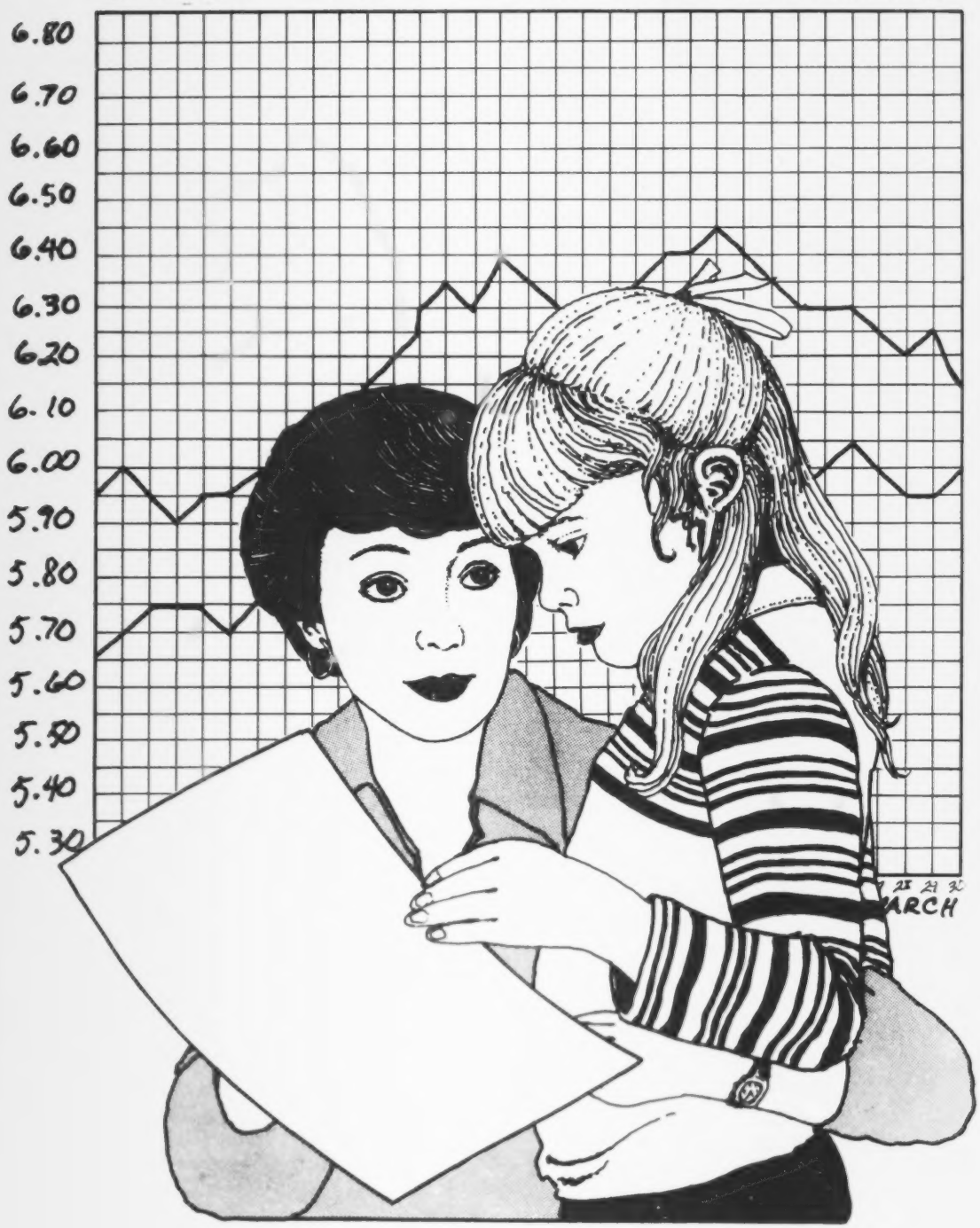
The mini-economy is a challenge, but a truly rewarding one, for both teachers and students. It is a unique and effective form of instruction which not only teaches basic economic concepts, but also encourages a more integrated curriculum.

Fourth graders at Roanoke Elementary School are operating a donut business in their mini-economy.

Tips for Teachers on Using a Mini-Economy in a Classroom

1. Begin slowly and progressively add new elements to the mini-economy. Do not attempt too much too quickly.
2. The classroom money must have *real* worth to students. Students must be able to purchase items or privileges of real value to them.
3. Have high expectations of honesty. Specify clearly the consequences of cheating or theft.
4. Inform parents of mini-economy activities. Parents are normally supportive and helpful.
5. Encourage other teachers to do mini-economy activities. This promotes the exchange of valuable ideas.
6. Develop ways for all types of learners to earn money and be successful in the economy.
7. Use play money as an incentive for learning in other basic subjects. The mini-economy should enhance regular classroom learning.
8. Make all aspects of the mini-economy as close as possible to real life.
9. Adapt the mini-economy to your particular school and situation.
10. Give students responsibility. Believe in their ability to handle many administrative details in the mini-economy.

GRAPHING INVESTMENTS



Chapter Three
Expanding The Mini-Economy

Here are some ideas for expanding a mini-economy. If implemented one at a time, the activities will become an integral part of the classroom routine. While all of the activity may seem bewildering to the casual observer, it will be "business as usual" for the teacher and students.

Life's Necessities

One simple way to add a bit of realism to a mini-economy is to require students to pay for the various "necessities of life." Students can be charged for food, clothing, shelter, utilities, or medical services. Being responsible for their own needs also provides an excellent incentive for earning classroom income. Bennett's (1984) *Micro-Place* makes extensive use of this idea. Students draw cards to determine their marital status and how many children they will have to support. Thereafter, they must earn enough income, through wages or business profits, to support their "family." *Micro-Place* students must also pay for their education. Instead of the teacher paying students for homework or good behavior, students must pay the **teacher** for instructional services. This reminds the students that these services, which are often taken for granted, are not free.

Class Banks

A bank is a natural for the mini-economy. Although several students may insist on hoarding magnificent wads of currency at their desks, most will want to put some of their money into the class bank, especially if the accounts earn interest. Some teachers deposit wages and income directly into their students' bank accounts. This facilitates banking procedures and reduces student errors. One drawback is that students get less addition and subtraction practice. Also, the impact of receiving a day's wages is probably greater when students receive cash directly.

The class bank can provide many of the services offered by real banks, such as checking accounts. Students enjoy using checks (personalized, if possible) to pay their bills. Checks (Appendix A, p. 65) can be designed by the students, with the class choosing their favorite design. As the mini-economy develops,

checks can be designed and produced by class businesses. Sometimes checks can be provided by local banks, who will send someone to explain checking and banking to the class. Teachers who normally teach a unit on checking will find that the mini-economy is an excellent vehicle for the practical application of this instruction.

Students will want to earn interest on their checking and savings accounts. In order for the interest to have an impact on student decisions in the mini-economy, the time frames associated with giving interest need to be shortened. One or two weeks might equal a year of time. The teacher could also establish a set number of days for savings to be on deposit before earning interest. This eases administrative burdens and emphasizes an important economic principle: saving for the future and receiving interest results from not spending in the present.

Class banks can also make personal and business loans. This is a good time to teach students about the benefits and dangers of credit. Bank loans and interest payments also offer excellent practical examples for teaching mathematics lessons on basic algorithms, percents, and decimals.

Banking Jobs in the Classroom

Class banks also provide jobs for the classroom. Students usually enjoy being tellers and will carefully complete job applications in order to get these jobs (Appendix A, p. 69). This is a good time to point out how one's skills (in this case, a student's mathematics ability, neatness, and clerical accuracy) are important factors in getting a good job.

Banking business is conducted every Friday in Mrs. Cynthia Gregory's kindergarten classroom at Mt. Comfort Elementary School. The student paymasters, who must apply for their jobs, are chosen from those with the ability to read names and do math facts.

Stress the importance of clear, concise English and of neat writing on the job application. It is interesting to require students to state why they want particular jobs. The responses will be quite revealing, ranging from serious attempts to sell one's skills, ("Because I am good in math and I can be there every night because I am never absent". . .and "I am honest and I like working at something when I am bored at the end of the day"), to desperate and often quite amusing pleas for help ("For my rent to keep my home, and for my insurance and for the big sale, I need the money bad!"). Some teachers require job applicants to submit recommendations, usually from adults not in the applicant's immediate family. While the first bank in a classroom is usually teacher-owned, teachers should consider letting the students own and operate their own banks. The student owners will then be responsible for determining interest payments, making loans, issuing checks, setting wages, and hiring and firing employees. The teacher will want to establish some guidelines, as long as they are not too rigid. Much learning takes place if students are given the opportunity to make and bear the consequences of their own decisions.

Initially, there may be too many banks, as students clamor to make a "quick buck." As owners experience the inevitable start-up costs and have difficulty getting enough customers because of competition, unprofitable banks will soon go out of business, leaving just enough to handle normal business activity. If banks owners get tired of the banking business, they can sell their bank to other students. Let the students work out the contractual details of the sale, including the terms of payment, use of old bank forms, use of desk rental space for the bank, treatment of former employees, and adequate capitalization (money reserves). In dealing with these issues, many students will display surprising business acumen.

Practical Tips

A few practical tips regarding class banks might be helpful. Since there are sometimes difficulties keeping accurate records of the students' checking or savings accounts, it is helpful to use an account statement form that requires the students to do the addition or subtraction **on the form** (Appendix A, p. 67). This makes the students work the math, instead of carelessly doing it in their heads. It also enables the teacher or a hired student accountant to determine more easily where a mistake occurred. Require the careless party to pay any accountant fees. This provides a strong incentive for student accuracy.

Another way to insure better accuracy is to use deposit and withdrawal slips (Appendix A, p. 63) in banking transactions. This helps the bankers to keep track of transactions and also adds a measure of realism. Some teachers keep bank accounts on the computer. This adds even more realism. Since the com-

mercial programs that are available tend to be expensive, some teachers have written their own sample programs.

It is helpful to have set banking "hours." Banks might be open before school, as students are arriving and getting settled, and during the last 10 minutes of the day, as students are preparing to leave. If there is overcrowding at the banks, this increased demand for bank services can be an incentive for students to open other banks or for banks to raise their fees. This is an excellent opportunity to use a real classroom situation to illustrate important economic concepts such as market price, supply and demand, and market allocation of resources.

Lastly, some central, safe place is needed for the banks to keep their funds. A filing cabinet drawer is usually satisfactory, and, in most situations, should not even have to be locked.

Insurance Companies

Insurance can be incorporated quite successfully into a mini-economy. It is also one aspect of the mini-economy that makes excellent use of community resources. Insurance people enjoy coming to the classroom, and frequently will provide free teaching materials. Some teachers who are particularly interested in insurance use the mini-economy insurance companies as a springboard for an in-depth social studies unit on the subject.

A student insurance agent makes a sale at Clinton Prairie Elementary School in Jefferson.

There are two basic types of insurance protection that may be necessary in a mini-economy: protection against imaginary accidents and protection from actual risks incurred by students in the classroom. Each of these is examined in more detail below.

Protection Against Imaginary Accidents

This can be a very successful aspect of a mini-economy. One day every week can be "Accident Day." On this day in one teacher's class, three "accidents" also occurred, one involving an automobile, one a household disaster, and one a medical problem. Household disasters involved things such as theft, a flooded basement, or a tree falling on a roof. One of the medical cards read as follows: "You fractured your wrist during a softball game and had to go to the emergency room to have a cast put on it. Pay $500." There were seven possible accidents with varying degrees of monetary liability in each of the three categories. Each accident was chosen randomly and read aloud, and then some unlucky student's name was drawn. Any student who had not bought the proper kind of insurance from a salaried agent had to pay the full cost of the accident immediately.

"Accident Day" understandably generated a good deal of excitement and anticipation, especially on the part of those students who had not purchased insurance. The teacher relates the story of one young daredevil in the class, who was quite rich, who never bought insurance, and who let everybody know about it. The roar was deafening the day when, not only was his name drawn, but it was drawn for the most expensive medical accident possible. He reluctantly trudged to the front of the room to pay his newly acquired medical expenses.

Letting the students run their own insurance companies added another element of realism. Not only was "Accident Day" a time of suspense for those students electing not to purchase insurance, but it became a crucial day for the insurance company owners. They did not want **their** clients to have accidents, since that was a financial liability to the company.

Many valuable lessons can be learned when students are allowed to form their own insurance companies. Aspiring entrepreneurs may want to form partnerships. They would need to obtain a license from the teacher, buy forms (Appendix A, p. 63), and deposit a specific amount of money in reserve to cover any accidents their clients might incur. For a fee, companies might be allowed to advertise on the "Financial News" bulletin board. The students must choose what type or types of insurance to sell and what premiums to charge.

Some students might view insurance companies as a way to "get rich quick," and initially there may be quite a few companies. This stiff competition will result in few clients and low premiums. Consequently, several companies will probably be forced out of business, leaving just enough to handle the class insurance needs.

Protection from Actual Risks Incurred by Students

Even in a classroom, there are risks that students want to avoid. Class insurance companies can also protect students against these risks. One example is insurance which pays lost wages or salaries of students who are absent. Students will devise creative ways to determine the cash payment in case of absence. They will also learn to charge premiums which reflect a student's past absentee record. High risk students, those who are absent frequently, will have to pay higher premiums.

Insurance companies give students, company owners, and policyholders the opportunity to make many meaningful decisions. In doing so, students will learn much factual knowledge about insurance and the valuable role that it plays in our economy.

Real Estate

Simple real estate concepts are sometimes integrated into traditional instruction. To help teach the concept of budgeting, it is not unusual for teachers to charge their students **rent** for using their desks. In the mini-economy, however, the concept of real estate can be explored in depth and can be an effective means for teaching many economic lessons.

One way to incorporate real estate into the mini-economy is by "selling" the desks in the classroom. Instead of charging for desk rental, hold an auction and **sell** each desk in the classroom. This means that in all probability, some students will purchase more than one desk, with some students buying none. The latter will have to rent from the desk owners. In one class, a boy owned five desks and still rented from someone else. Evidently, he was earning more by renting the fifth desk than he was paying in rent himself!

Each desk can have a simple title (Appendix A, p. 72) to keep track of the current owner. A student can be hired to record all title changes. Better yet,

charge a recording fee and let the student recorder keep a portion of it. This serves two purposes. First, it discourages too frequent selling of desks, which can be disconcerting. Second, this financial incentive will encourage the recorder to make sure that title changes are, in fact, getting recorded. Remember, one of the purposes of the mini-economy is to encourage student responsibility, not to burden the teacher with extra work. The natural reaction of most teachers is to try to keep things under control by doing everything themselves. It is better to ask this question before expanding any aspect of the mini-economy, "Could my students realistically do this?" More often than not, the answer will be "yes." Giving students responsibility not only helps the teacher, but also benefits the students.

To add interest and realism, auction more desks than there are students. Potential landlords, who wish to purchase more than one desk, must then risk not finding tenants. Having more desks than students also reduces the possibility of a student having to pay an exorbitant rent for the last remaining desk in the room. In practice, students usually find creative uses for any extra desks, such as for a "vacation home" or for additional storage.

The Importance of Contracts

This is a good time to study the importance of the private contract in our economic and social system. The need for contracts will arise naturally as landlords and renters both seek written guarantees for their rental agreements. A simple contract can be fashioned, with students being required to use it. This will reduce minor arguments and disagreements. It may be even more instructive to let the inevitable squabbles over rental agreements illustrate the need for written contracts.

Then require the students to formulate their own contracts. They will quickly learn (often from their own mistakes), the key elements that should be included in the contracts. Some of these elements might include a description of the property, the rental rate, length of occupancy, terms of payment for any damages (this discourages writing on desks), number of days notice before vacating, and penalties for non-payment.

At this time, students could study actual real estate purchase and rental contracts, examining the similarities between these contracts and their own. For a language arts assignment, students could design a model contract, using correct grammar, spelling, and punctuation. This would be a good handwriting assignment, and the finished contracts would make an attractive bulletin board display.

Other Real Estate Ideas

There are other interesting possibilities for using real estate in the classroom. Designate a portion of the classroom or another vacant classroom as the "business area," and require business owners to occupy properties there. Students must then decide if their business will generate enough revenue to cover these real estate costs. Sell all possible business "properties," including desks, tables, chairs, shelves, and window ledges at a pre-announced real estate auction.

The business could buy properties outright or could rent them from other students. Owners would be free to sell their business property at any time, earning a capital gain or a capital loss. They will perceive how the value of a piece of property is linked to its contribution to business profits. They will also see that any increase in the value of a piece of property will be realized (capitalized) by the current owner. Subsequent buyers must pay a higher property price, resulting in higher business operating costs and possibly lower profits.

If space does not permit actual business properties within the classroom, create a colorful property board describing the available real estate. Better yet, why not have the students create one for an art project? Require students to own or rent one of these fictitious pieces of property in order to operate a business.

Real estate can be a very relevant and exciting part of a mini-economy. Students will respond eagerly to it. It is also an ideal area for making use of your community resources. Invite real estate people to the class to explain their role as middlemen in property transactions. Very often, they will provide materials for use in the class. There are other ways to incorporate real estate into the mini-economy. Real estate activities may appear complex; but, once set into place, they will function with minimal attention, especially if wise use is made of student workers. The rewards are well worth any extra effort it might take.

Business

It has been said that the business of America is business. While this does not describe the main "business" of the elementary school classroom, there is great value in exposing students to the many interesting and worthwhile aspects of the ever-present business world. Mini-economy businesses provide the perfect opportunity to do just that.

Jo Ellen Hubbard, teacher at Harcourt Elementary School in Indianapolis, assists the bankers and monitors in her fifth grade class as they figure classmates' fines and paychecks on the first payday of the school year.

teachers hire various types of government workers, such as tax collectors, postal workers, sanitation workers, or policemen. Some classes elect legislators and judges to create rules and administer justice. Their salaries are also paid out of taxes. Using tax receipts to pay for these actual services illustrates to the students the link between government services and the way they are financed. The taxes are, thus, not arbitrary impositions, but are based on actual class needs. It would also be profitable to let the class legislature determine the government services that should be provided, the remuneration for the services, the types of taxes, and the corresponding tax rates.

Various aspects of classroom government, such as legislatures or courts, are time consuming. In a complex mini-economy, where two or three hours of class time are allocated each week for mini-economy activities, this should not be a problem. In a simpler mini-economy, it is best to limit government activities to taxation for limited or imaginary services.

Investments

Adding investments to the mini-economy creates much interest and enthusiasm. They are easy to implement, since a classroom money system will already be in place, and they provide an excellent opportunity to use many basic mathematics skills. Some investment possibilities are described below.

Common Stocks

The stock market has typically been the favorite for most traditional classroom investment projects. Students pretend to invest in specific stocks, and then follow their investments in the financial section of the local newspaper, recording either profits or losses. The mini-economy, however, adds a dose of realism not present in typical stock market projects, since students are confronted with the possibility of "real" play money losses and gains.

Ease the class into stock investments. This can be done by **giving** each student 100 shares of a particular stock. Choose 25 or 30 possible stocks and draw names out of a hat to determine their distribution. Later, after the students have charted their own stocks and have grasped the basics, let them buy and sell as they please. Student accountants can be paid to handle the mechanics of the stock transactions, or transactions can be made through student brokerage businesses. If there is sufficient demand for stocks, it is fairly certain that several of the more entrepreneurial students will open brokerage businesses.

Students can use various graphing techniques to follow the progress of their stock purchases. Mathematics lessons and problems on fractions can also be built around the class stock investments. For example, "GM closed at 68 3/4 per share yesterday, but it dropped 1/2 today. What is the new price?" Or, "GM is 68 1/2 and Ford is 42 1/4. How much more is the price of the GM stock?" Other mathematics skills that could apply include using standard algorithms in various transactions, rounding fractions to the nearest whole number, and changing fractions to decimals. What's more, students will grasp these mathematical concepts more readily, since they actually use them in day-to-day business transactions.

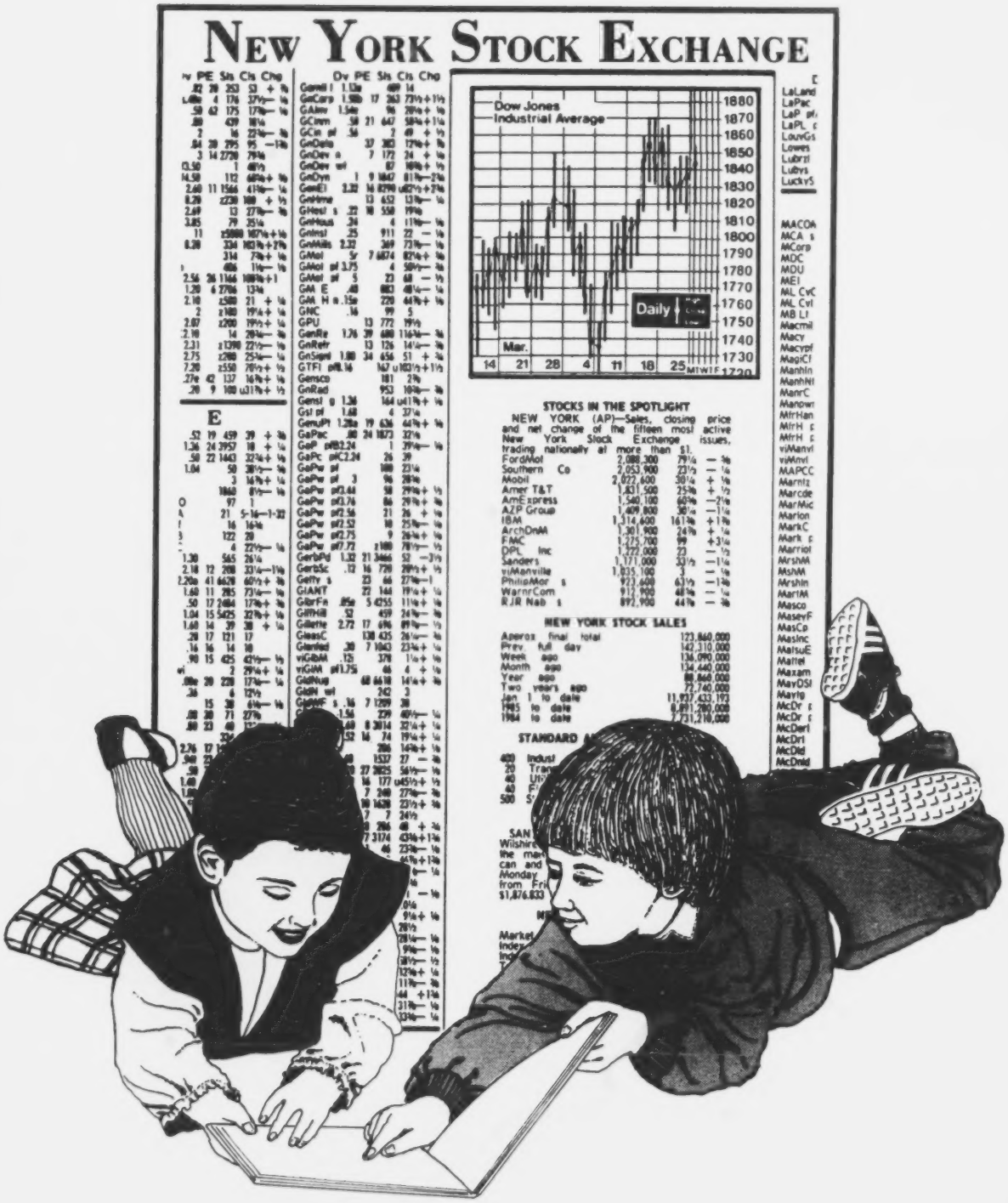
Precious Metals and Commodities

Investing in precious metals and commodities is very simple and will be particularly interesting to students who live in areas where specific commodities are actually produced. Prices of corn, wheat, gold, silver, and other commodities are listed in the "Cash Prices" section of *The Wall Street Journal* or in the financial section of some other newspapers. Post the prices daily on the bulletin board. Students pay the current market price for any commodity they choose, and they receive a "commodity certificate" as a receipt. At any future time, students can resell the commodity, hopefully earning a profit.

There are two important points to remember about commodities and investments. First, the main goal is to teach students to think through the fundamental supply and demand conditions that could possibly affect their investments. Explain how weather conditions can influence crop prices, and then encourage the students to consider weather factors in their commodity grain purchases. Or, have students collect newspaper articles which illustrate how certain events, such as mining discoveries, bank failures, or international political tensions, influence precious metal prices. Admittedly, the time frame for most investments is too short and these data collection techniques are not sophisticated enough to analyze all of the economic fundamentals that could affect commodity prices. However, the goal is to get the students to consider these factors and to become aware of how they can affect prices.

Second, it makes sense to let the students use calculators with especially difficult calculations. This is almost a necessity when trying to figure out how much gold at $377.75 per ounce one can buy with $1,500. Much of the real mathematical value of the commodity trading is in determining **how** to figure the final purchase or selling price, and not in laboring over extremely difficult arithmetic calculations.

It is not necessary to know much about stocks or commodities to try something like this. There are many booklets or articles that describe the basics of the stock market. *The Wall Street Journal* publishes an "Educator's Edition" that explains how to understand the financial data listed in that newspaper. An article in the June, 1981 issue of *Changing Times,* entitled "Stock Market Basics for Beginners," is also very good. Another possibility is to invite a stock broker or investment advisor to explain some of the basic concepts to the class.


NEW YORK STOCK EXCHANGE
Dow Jones
Industrial Average
Daily
Mar.
STOCKS IN THE SPOTLIGHT
NEW YORK (AP)—Sales, closing price and net change of the fifteen most active New York Stock Exchange issues, trading nationally at more than $1.
FordMot 2,088,300 79¼ — ⅜
Southern Co 2,053,900 23½ — ⅛
Mobil 2,022,600 50¼ + ⅛
Amer T&T 1,831,500 25⅝ + ½
AmExpress 1,540,100 60⅜ —2⅛
AZP Group 1,409,800 30⅛ —1⅛
IBM 1,314,600 161⅜ +1⅜
ArchDnM 1,301,900 24⅞ + ⅛
FMC 1,275,700 99 +3¼
DPL Inc 1,222,000 23 — ½
Sanders 1,171,000 53½ —1¼
viManville 1,035,100 3 — ⅛
PhilipMor s 923,600 63½ —1⅜
WarnrCom 912,900 48⅜ — ⅛
RJR Nab s 892,900 44⅞ — ⅜
NEW YORK STOCK SALES
Aprox final total 123,860,000
Prev. full day 142,310,000
Week ago 136,090,000
Month ago 134,440,000
Year ago 88,860,000
Two years ago 72,740,000
Jan 1 to date 11,937,433,193
1985 to date 6,891,280,000
1984 to date 7,731,210,000

gestions for effectively dealing with the problem. First, appeal to the students' desire to do what is right. Emphasize that stealing is wrong and that the whole system depends on respecting the property of others. Make it clear that they are expected to turn in any lost money that is found and praise them accordingly when they do. It is helpful to sometimes give students a small bonus for being honest. Let the students know that honesty and high standards are expected and then reward them for it. This may appear naive and, perhaps, it would be in certain classroom situations; but it can be very effective. The entire class will derive satisfaction from the frequent praise students receive when they return lost money. Mini-economy teachers reported that honesty was very important in the students' minds. This was evidenced in the number of times that it was mentioned on the various applications for jobs which involved handling money, such as being the bank teller.

In addition to stressing honesty, stiff penalties should be levied for those students who are caught stealing. The teacher should deal with it promptly and effectively to prevent it becoming a disruptive influence in the classroom.

QUESTION: **"Isn't paying students for desired behavior a form of bribery?"**

ANSWER: Some teachers instinctively object to rewarding students for desired behavior. They believe that play money rewards are, in essence, a form of bribery — students should not be paid for things they should be doing anyway. Some researchers have argued that rewards are actually counterproductive; that the desired behaviors are actually undermined when the rewards are removed. Other researchers have countered that this conclusion is not warranted, since much of the research has been poor or has been conducted in unrealistic, narrowly defined settings.* Many teachers concur, finding that in their classrooms, paying students has been an effective tool for classroom management. Teachers who feel strongly about not rewarding specific student behavior can simply pay students for doing classroom jobs. There are always enough to go around in any classroom. Teachers can encourage their students to earn money by operating class businesses. This thorny issue does not have to be a stumbling block.

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*For a detailed analysis of this difficult and controversial issue, see "Reward-Induced Decrements and Increments in Intrinsic Motivation," by Mark Morgan in *The Review of Educational Research,* Spring, 1984, Vol. 54, No. 1.

QUESTION: **"Will parents criticize the mini-economy?"**

ANSWER: Parents are usually supportive of teachers who have used mini-economies. For one thing, parents appreciate the behavior changes that often occur and the renewed interest that their children exhibit toward school. Parents are pleased with the interest their children take in family financial matters and in managing money in general. One parent wrote, "This system has been a big help in Jerry's understanding the value of money. He respects his money and he is more thrifty." Another parent commented, "Elisa had no idea about money. She's learned it costs money to do and buy almost everything; plus, your study in gold and silver helped her realize that things go up and down. Both Shawn and Elisa had it and it made them become aware of the value of money. Both girls seemed to have incentive, more knowledge of current markets, inflation, and seemed cautious when making purchases. 'Sales' became a household word. There was bargain shopping for Christmas and birthdays, etc. We both feel that the system was not only of benefit in the classroom, but was of much importance at home. We thank you."

It is obviously very important to keep parents informed about the mini-economy. It is a good idea to send a letter home at the beginning of the year describing the system and the rationale for using it. Parents will appreciate being kept informed and this will increase the likelihood that they will want to become involved in the operation of the mini-economy, especially as speakers who will share their own business or work experiences with the class.

The Rent-A-Toy booth opens at specified times in the mini-economy operating in the first grade classroom of Karen Meade at Mt. Vernon Elementary School.

QUESTION: **"Can I count on administrative support?"**

ANSWER: Principals and other administrators have been supportive of mini-economies. One reason is the enthusiasm and interest generated on the part of all concerned — teachers, students, parents, and members of the local community. Such positive enthusiasm, especially among teams of teachers, is a breath of fresh air to many school buildings.

A second reason is that the mini-economy encourages students to apply the skills learned in the other subject areas. There is much concern for the need to "teach the whole child", and to provide realistic instruction with practical application. The mini-economy does just that and most administrators appreciate this fact.

Another compelling reason why administrators are supportive is that mini-economies often generate positive publicity for the schools. Often a well-organized mini-economy attracts the attention of the local media, who are on the lookout for interesting human interest or educational stories. This provides positive publicity for schools at a time when they are frequently targets of criticism.

Teachers should keep administrators well informed of classroom activities and should give them information copies of communications to and from parents. Invite administrators to the classroom to see the mini-economy in operation and emphasize to them the numerous ways that the mini-economy encourages the application of basic skills which were learned in other subject areas. This negates possible criticism that the mini-economy detracts from learning in these areas.

QUESTION: **"Should I use fines, or simply reward students for positive behavior?"**

ANSWER: This is a question that is frequently asked by those teachers whose mini-economy is structured along the lines of a token economy. For the most part, it is best to emphasize the positive. A teacher can easily slip into a negative frame of mind, with much of the classroom discipline centering around what the students should **not** do. The value of a token system is that it encourages students to do what they **should** do. On the other hand, teachers who fine students have indicated

that it is a very effective technique. One teacher levied fines for running in the halls (speeding), overdue books, littering the floor, disorderly conduct, lost checkbooks, overdrawn bank accounts, etc. She felt that these fines typified those received in the real world. Basically, it all boils down to one's personal preference. Fines are appropriate in certain instances, but they should not be overemphasized.

QUESTION: **"Does the mini-economy work for all types of learners?"**

ANSWER: All students function well within a mini-economy, usually responding enthusiastically to the practical, true-to-life activities. In fact, they are often motivated by the system. If students are rewarded for various kinds of behavior, it is important to include behaviors that all students can manage. In addition to rewarding academic excellence, consider rewarding academic **improvement** so that all of the students can benefit. Students who are not adept in academics can do quite well in mini-economy activities. They often exhibit good business savvy and respond positively to opportunities to form businesses, to trade, and to earn money in various non-academic ways.

Time on the computer is often one of the privileges that students can purchase with their mini-economy dollars.

QUESTION: **"How strictly should the teacher control ways in which students earn money?"**

ANSWER: The teacher should exercise as little control as possible. Students will devise creative ways to earn income. Others will imitate these enterprises, allowing for some healthy competition, encouragement of creative thinking and decision making, and creation of a good backdrop for illustrating some basic economic concepts. For example, one mother worked at a bank and brought home a quantity of small desk calendars used for advertising. The student found that he could sell them to his classmates for a handsome profit.

The teacher must use discretion. Students should not be allowed to pawn family heirlooms or liquidate valuable stamp or coin collections in order to get ahead in the mini-economy. Fortunately, these situations do not arise often and the teacher can let the students use their own creativity.

QUESTION: **"Is it possible to implement a mini-economy in the primary grades?"**

ANSWER: Although this booklet has presented ideas that are geared mainly to the intermediate grades, successful mini-economies can be implemented at the primary level. Modifications are necessary. Wage rates and banking procedures must be simplified and the emphasis must be on the simpler economic concepts. More structure must be provided in all mini-economy activities. The younger children will respond as enthusiastically to these activities as their intermediate counterparts. A visit to a primary classroom already using the mini-economy can give a teacher ideas for beginning the project. Information regarding primary classrooms using this concept may be obtained by writing: Harlan Day, Economics Education Consultant, Indiana Department of Education, Room 229, State House, Indianapolis, Indiana 46204-2798.

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Bibliography of Curriculum Materials

A Framework for Teaching the Basic Concepts
Phillip Saunders, G.L. Bach, James Calderwood, W. Lee Hansen

This booklet clearly explains basic economic concepts. It is very helpful for teachers who have not had much formal training in economics. Approximate cost $7.00 (1984).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
212/685-5499

Economy Size Carol Katzman and Joyce King

This book presents a large variety of K-6 economic ideas and activities which can be used within a mini-economy. About 25 pages of mini-economy reproducibles are included. Recently out-of-print (1978).

Goodyear Publishing Company, Inc.
1640 Fifth Street
Santa Monica, CA 90401
213/393-6731

Elementary Economics: A Bibliography

This annotated bibliography describes popular economics education materials for elementary grades. A useful chart describes the economic content covered in each of the materials. Distributed free of charge in limited quantities (1985).

Federal Reserve Bank of Chicago
Public Information Center
230 S. LaSalle Street
Chicago, IL 60604
312/322-5109

Elementary Economist

This quarterly publication explains basic economics concepts and highlights K-6 teaching activities which teach the concepts. $15.00 per year.

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
212/685-5499

Micro-Place Social Studies Curriculum Stan Bennett

This curriculum is a simulation designed to teach concepts in economics and law by immersing students in a pre-existing market economy and democratic political system.

Institute for Child Study
University of Maryland
College Park, MD 20742
301/454-2036

Mini-Society: Experiencing Real-World Economics in the Elementary School Classroom Marilyn Kourilsky

This booklet explains in detail how to set up a Mini-Society in the intermediate grades. Approximate cost $12.00 (1983).

Addison-Wesley School Division
1843 Hicks Road
Rolling Meadows, IL 60008
1-800/535-4391

Scholar Dollars: Their Use in Classroom Management Ruth Deery

This booklet describes how to implement a token mini-economy. Many useful ideas are presented. It includes twenty pages of reproducibles, including currency, forms, job applications, and various other documents for use in the classroom. Recently out-of-print (1982).

Good Apple, Inc.
P.O. Box 299
Carthage, IL 62321
217/357-3981

Strategies for Teaching Economics: Primary Level Donald G. Davison

This booklet contains many different economics activities for students in the primary grades. Concepts such as scarcity, income, opportunity cost, choice, money, and specialization are covered. Approximate cost $8.50 (1977).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
212/685-5499

Strategies for Teaching Economics: Intermediate Level Marilyn Kourilsky

The many activities in this booklet are geared to grades 4-6. One section describes the Mini-Society, designed by Kourilsky. Approximate cost $8.50 (1978).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
212/685-5499

Trade-Offs

These 15 and 20 minute film/video programs cover many basic economic concepts for upper elementary students. Decision making skills are stressed throughout the series (1978).

Agency for Instructional Television
Box A
Bloomington, IN 47401
812/339-2203

Understanding Economics: Overview for Teachers, Experiences for Students Marilyn Kourilsky

This book explains basic economic concepts and provides activities and simulations. It also presents mini-lessons based on economic "fables" to motivate students. Approximate cost $7.00 (1983).

Addison-Wesley School Division
1843 Hicks Road
Rolling Meadows, IL 60008
1-800/535-4391

Winnie the Pooh and the Value of Things

This popular six-part filmstrip series covers simple economics concepts applicable to the primary curriculum. Approximate cost $199.00 (1977).

Walt Disney Educational Media Company
500 S. Buena Vista Street
Burbank, CA 91521
1-800/423-2555

Glossary of Economics Terms

Barter - A direct exchange of goods and services without the use of money.

Capital - One of the productive resources. Examples include manmade items such as factories, buildings, machinery, tools, and equipment.

Capitalism - A decentralized economic system based on the private ownership of most of the means of production, synonymous with market economy or free enterprise.

Checking Account - A written order to a bank ordering it to pay a person or institution named on it a specified amount of money. Checking accounts make up the largest part of the money supply.

Command Economy - An economic system in which major economic decisions are made by governmental authorities.

Commodity - An economic good.

Corporation - A business enterprise that is chartered by government to do business as a legal entity.

Currrency - That part of the money supply consisting of coins and paper bills.

Demand - The relationship between the quantities of a good or service that consumers desire to purchase and the various prices that can exist for the service or good.

Demand Curve - A graphic representation of the relationship between quantity demanded and price.

Economics - The study of how resources are used to satisfy people's wants.

Entrepreneur - Risk-taking innovator who organizes the productive resources in order to provide new goods or services or new productive methods.

Factors of Production - Land, labor and capital; synonymous with productive resources.

Free Enterprise - (See capitalism.)

Free Trade - International trade that is largely unrestricted by government regulation.

Income - What is earned as a result of productive activity.

Inflation - A continuously rising general price level caused by a continuous increase in the supply of money.

Interdependence - The relationship between individuals and institutions which develops because of specialization of production.

Interest - The amount paid for the use of borrowed funds.

Labor - All human resources used in production.

Land - All natural resources used in production.

Law of Demand - A law which states that the quantity demanded of a good or service varies inversely with its price; as the price decreases, the quantity people will buy increases; as the price increases, the quantity people will buy decreases.

Law of Supply - A law which states that the quantity of a service or good varies directly with its price; the lower the price the smaller the quantity produced, and the higher the price the larger the quantity produced.

Market Economy - (See capitalism.)

Marketplace (market) - The interaction of buyers and sellers.

Market Price - The price that clears the market. At this price, the quantities of goods and services offered by sellers and demanded by buyers are the same.

Medium of Exchange - A commodity commonly accepted in exchange for goods and services and as settlement of debts and contracts.

Money - Anything commonly used as a medium of exchange. Throughout history, gold and silver have been the most common type of money. Today, currency and checking accounts are used as money.

Opportunity Cost - The economic cost of a good or service as measured by the value of the sacrificed alternative.

Productive Resources - The land, labor and capital used in production.

Productivity - The ratio of the amount of output per unit of input.

Profits - The amount remaining to a business after subtracting total costs from total revenues.

Progressive Tax - A tax rate that increases as income increases.

Proportional Tax - A tax rate that remains constant at all levels of income.

Proprietorship - A single owner business enterprise.

Regressive Tax - A tax rate that increases as income decreases.

Scarcity - The problem of limited resources for production of goods and services relative to unlimited wants.

Specialization - When factors of production, especially labor, are used to concentrate on one particular task in the production process.

Supply - The relationship between the quantities supplied of a good or service and the various prices that can exist for the service or good. (See demand)

Supply Curve - A graphic representation of the relationship between quantity supplied and price.

Trade-off - Giving up one thing in order to gain another resource.

Wage (salary) - Income earned for labor service.

Suggested Models for In-Service on the Mini-Economy

Model I: Mini-Economy Awareness Program

Purpose: To introduce the mini-economy

Sessions: One one-hour session

Content: Slide presentation of a mini-economy in action, offering a general overview and rational for using a mini-economy

Model II: Starting a Mini-Economy

Purpose: To teach elements of implementing a mini-economy

Sessions: Three one-hour sessions

Content: Session One: How to get started

Session Two: Expanding the mini-economy

Session Three: Practical considerations

Model III: Economics and the Mini-Economy

Purpose:
1. To offer a basic understanding of fundamental economic concepts
2. To teach elements of implementing a mini-economy

Sessions: Ten one-hour sessions

Content: Session One: Introduction to economics and the mini-economy

Session Two: The economic problem - economic systems and the circular flow model

Session Three: The mini-economy and decision making

Session Four: How to get started

Session Five: Expanding the mini-economy

Session Six: Introduction to supply and demand

Session Seven: Supply and demand continued

Session Eight: Practical considerations

Session Nine: Review of curriculum materials

Session Ten: Individual or small group planning

Appendix A
Reproducible Mini-Economy Aids

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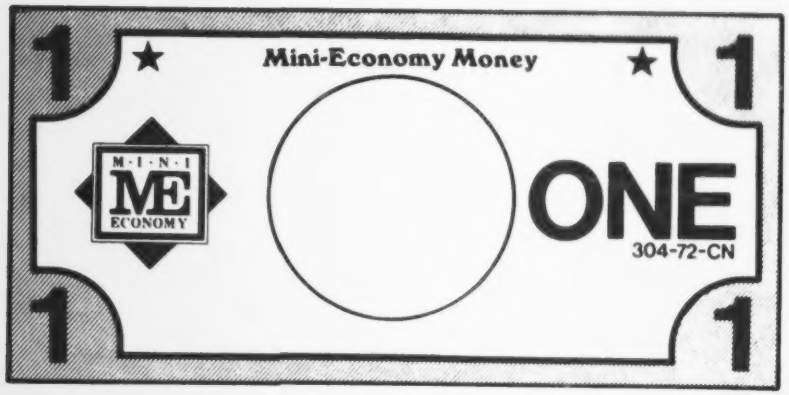
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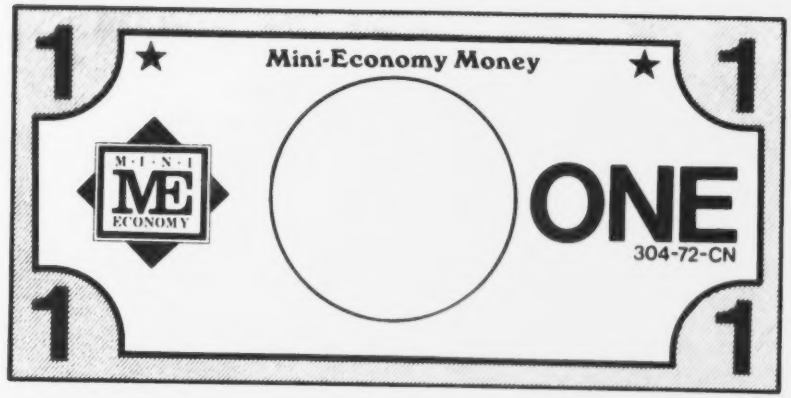
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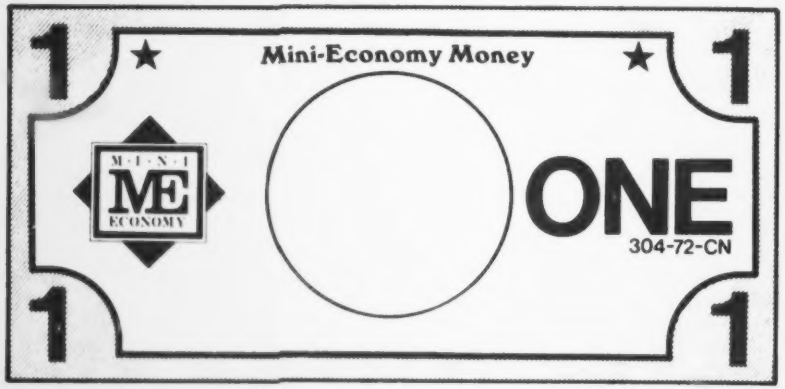
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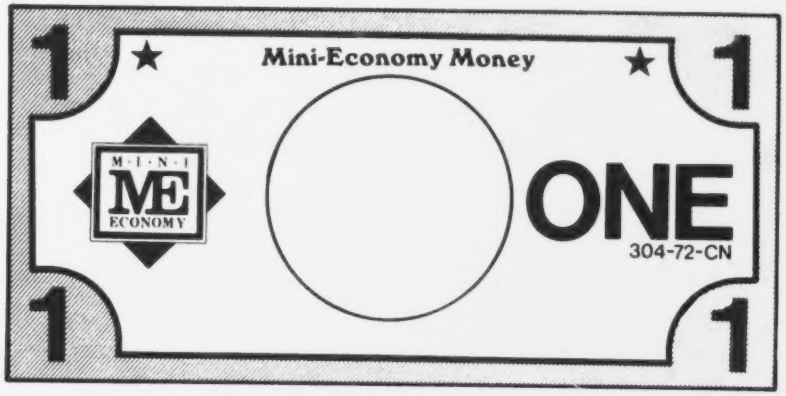
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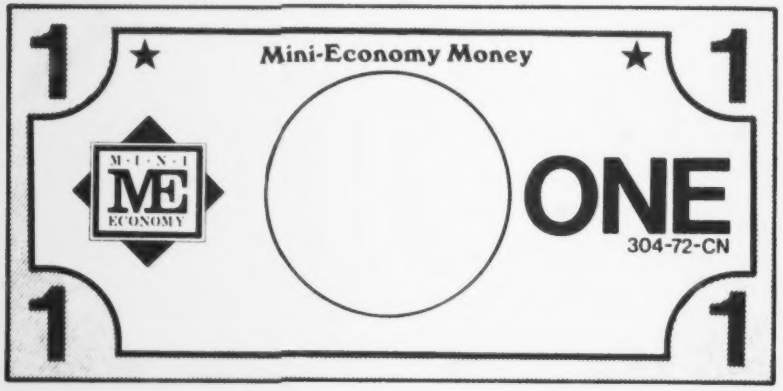
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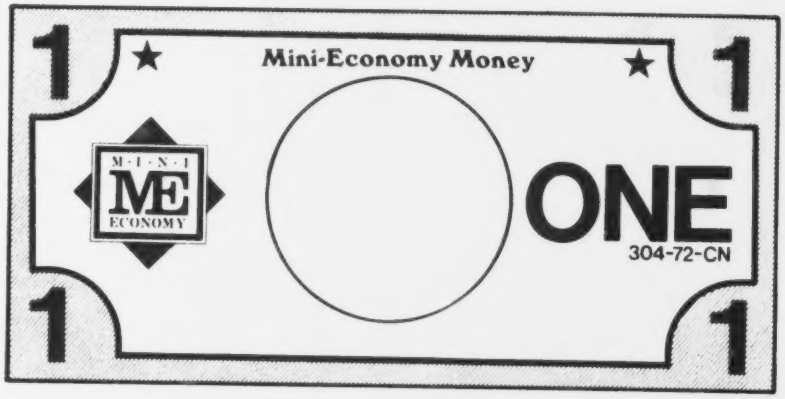
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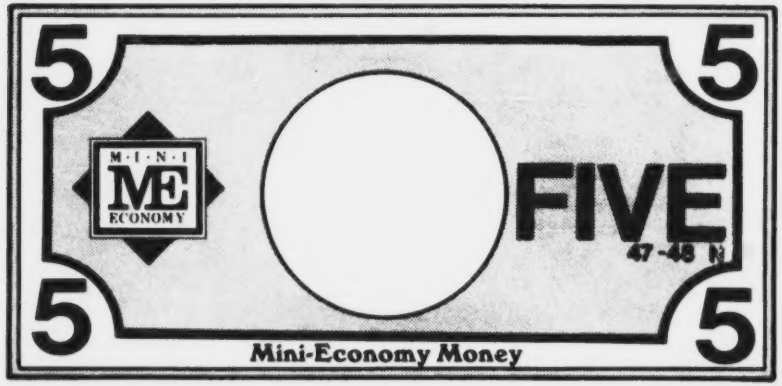
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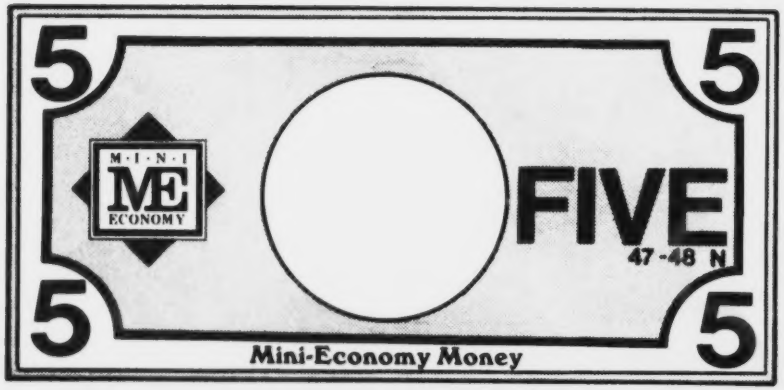
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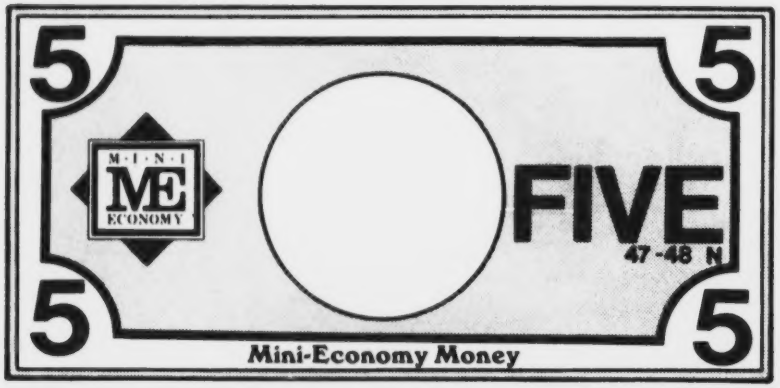
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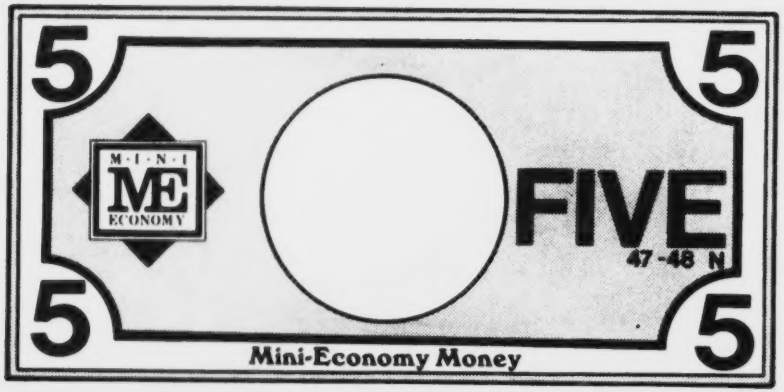
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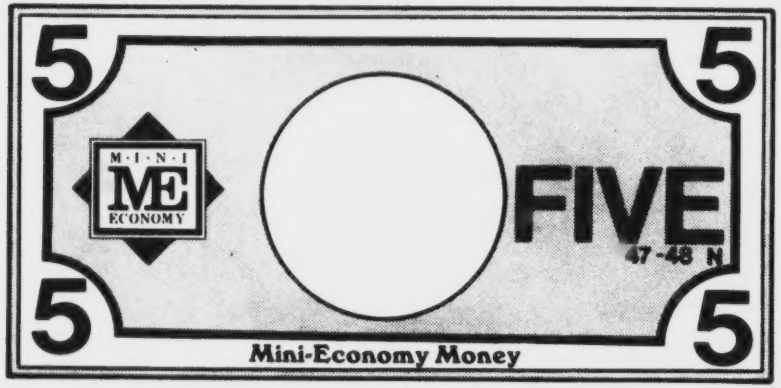
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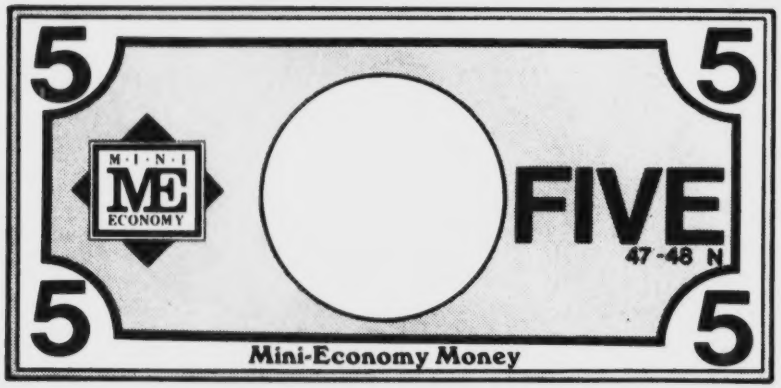
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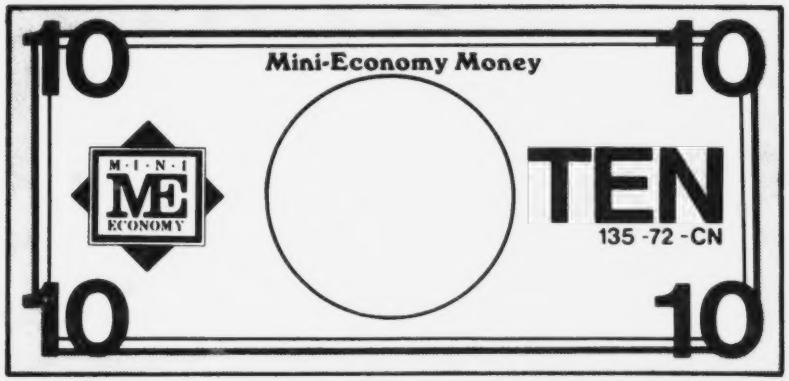
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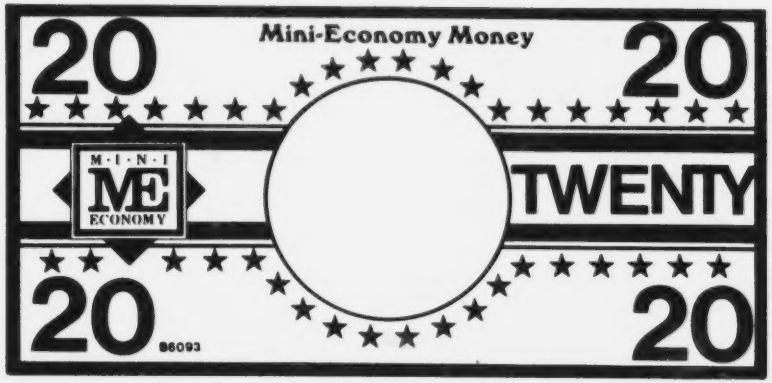
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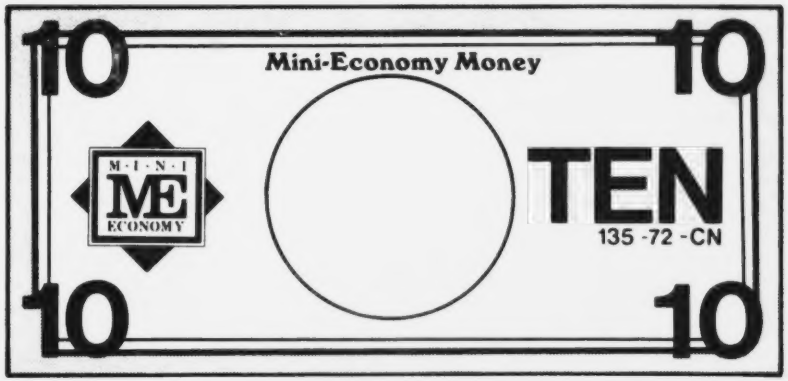
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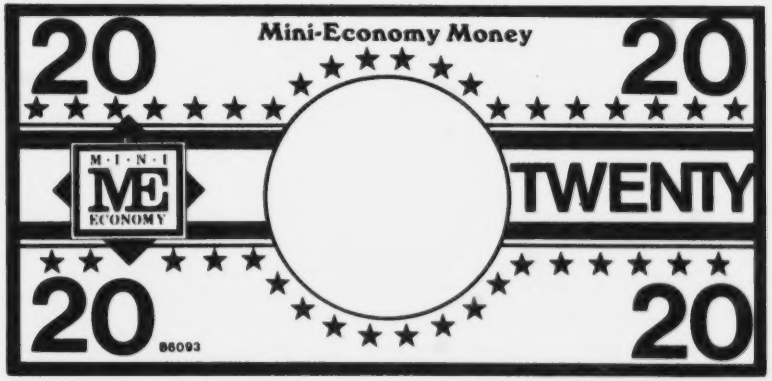
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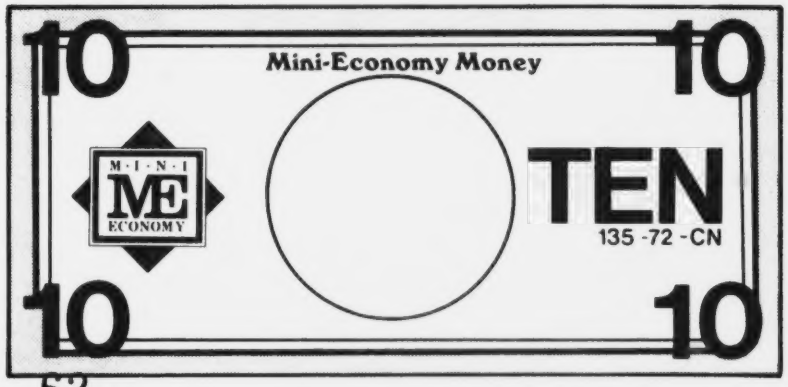
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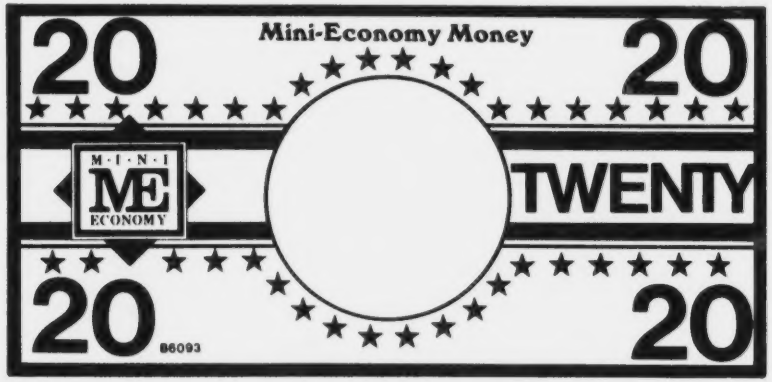
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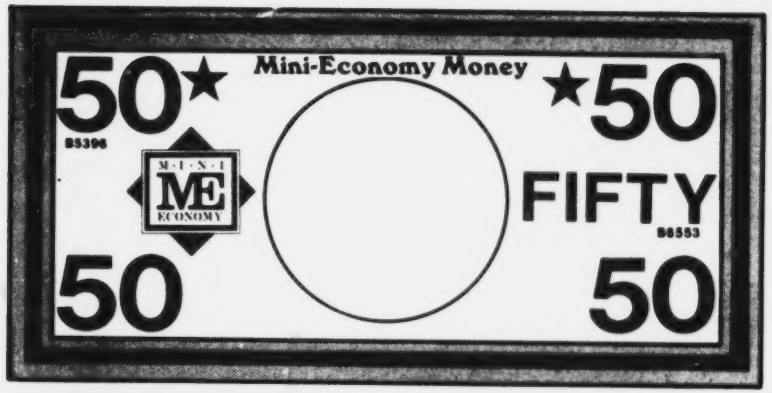
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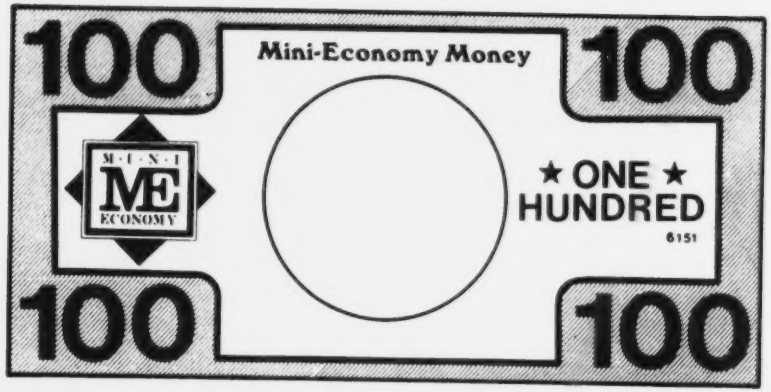
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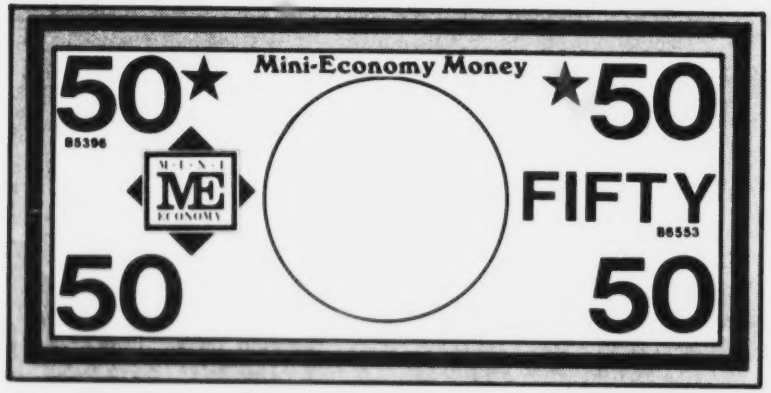
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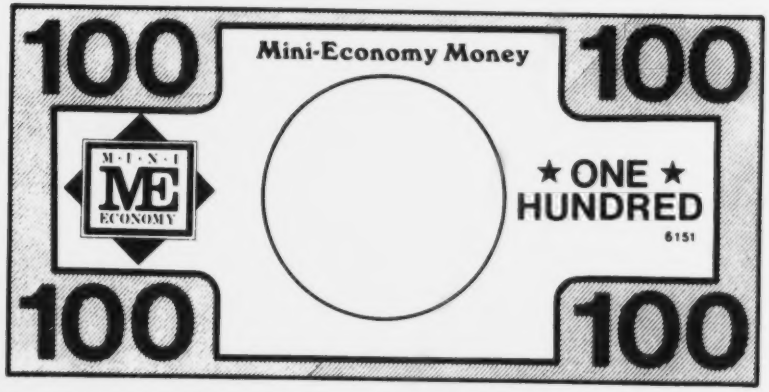
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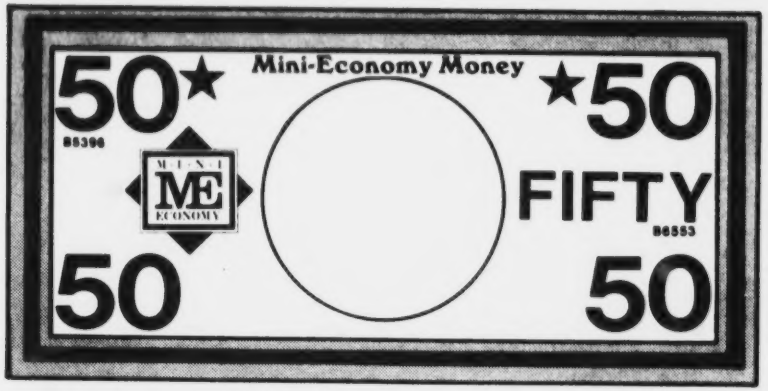
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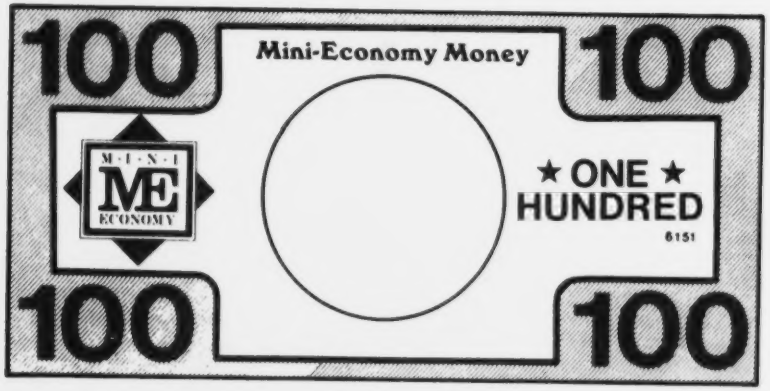
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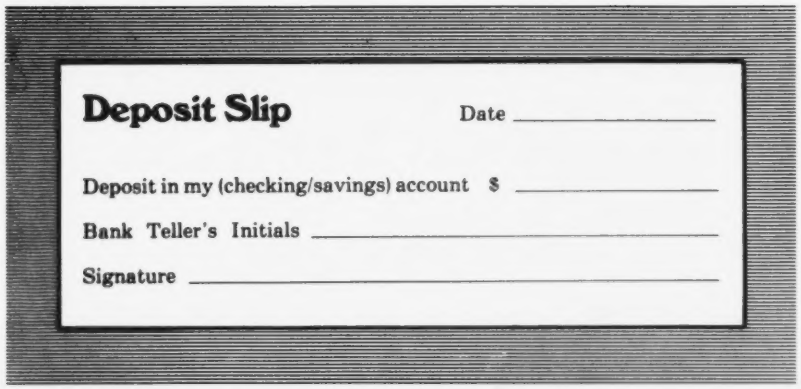
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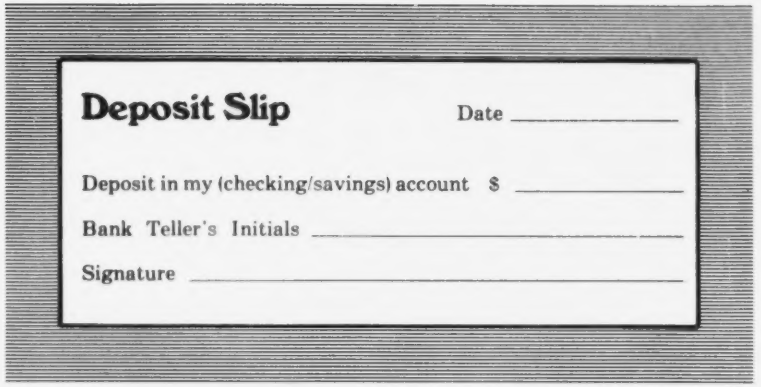
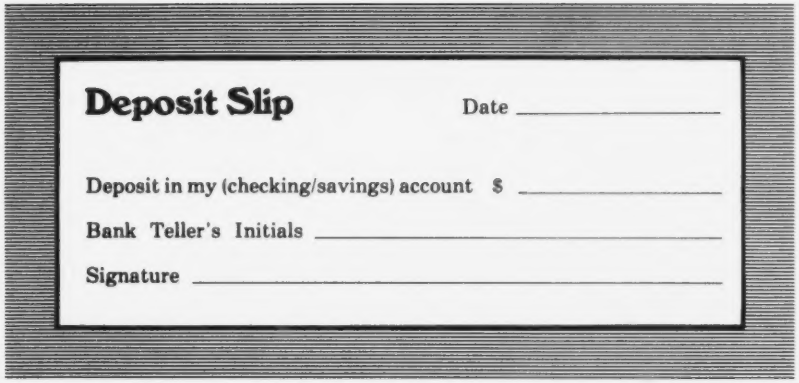
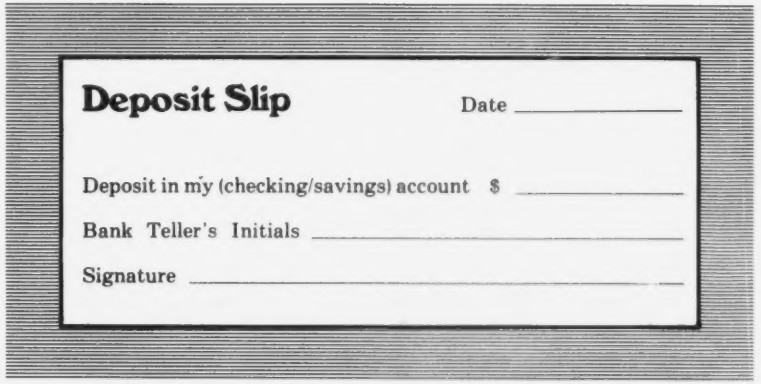
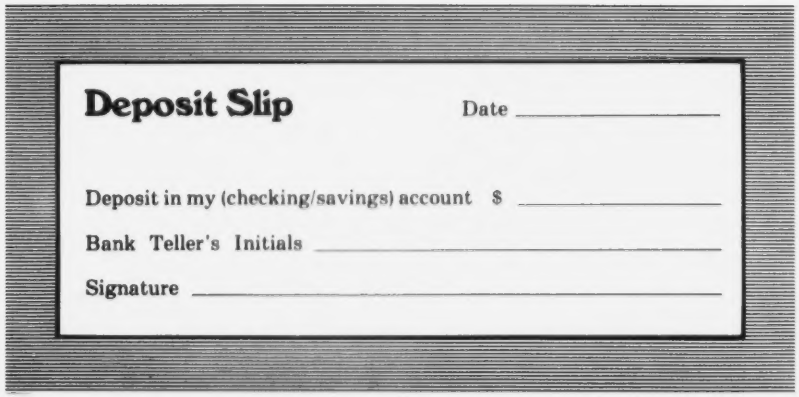
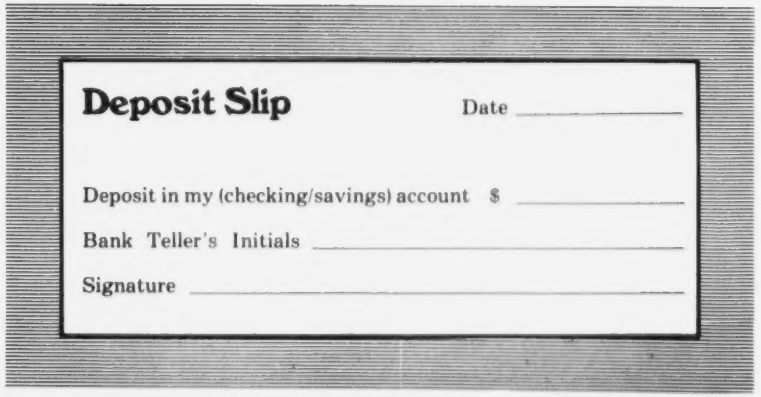
Bank Teller's Initials
Signature


Deposit Slip
Date
Deposit in my (checking/savings) account $
Bank Teller's Initials
Signature


Deposit Slip
Date
Deposit in my (checking/savings) account $
Bank Teller's Initials
Signature


Deposit Slip
Date
Deposit in my (checking/savings) account $
Bank Teller's Initials
Signature


Deposit Slip
Date
Deposit in my (checking/savings) account $
Bank Teller's Initials
Signature


Deposit Slip
Date
Deposit in my (checking/savings) account $
Bank Teller's Initials
Signature

63

66

67

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip

Date _____

Acct. Number _____

Withdraw from my Savings Account $_____

Bank Teller's Initials _____

Signature _____

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____

_____
Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____

_____
Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____

_____
Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____

_____
Authorized Signature

Income Record

Name _____ **Month** _____

Week 1	Mon.				
	Tues.				
	Wed.				
	Thurs.				
	Fri.				
	Total				Total Wk.1
Week 2	Mon.				
	Tues.				
	Wed.				
	Thurs.				
	Fri.				
	Total				Total Wk.2
Week 3	Mon.				
	Tues.				
	Wed.				
	Thurs.				
	Fri.				
	Total				Total Wk. 3
Week 4	Mon.				
	Tues.				
	Wed.				
	Thurs.				
	Fri.				
	Total				Total Wk. 4

Total Week 1 _____ **Total Week 3** _____

Total Week 2 _____ **Total Week 4** _____

Total for Month. _____

Savings Account Record

Name _____

Account Number _____

Date	Deposit +	Withdrawal −	Balance	Initial

Checking Account Record

Name _____

Account Number _____

Check Number	Date	Description of Check or Deposit	Amount of Deposit (+)	Amount of Check (−)	Balance	Initial

Job Application Form

Job Title _____ Date _____

Name _____

Salary/Wage _____

Previous Jobs Held _____

_____

What are your qualifications? _____

_____

_____

Why do you want this job? _____

_____

_____

_____

_____

_____

Signature _____

Job Description

Job Title: _____

Job Duties: _____

_____

_____

_____

_____

_____

_____

Personal Qualifications Necessary: _____

_____

_____

_____

_____

_____

_____

Workers must be responsible and must do the job properly, or risk being fired.

Workers who want to quit must give at least two (2) days written notice.

Income Tax Form

Name _____ Date _____

Income:	Total from Income Record Sheet	_____
	Interest Income	_____
	Other Income	_____
	TOTAL INCOME	_____
Deductions:	Standard Deductions	_____
	Other Deductions	_____
	TOTAL DEDUCTIONS	_____

Total Income − Total Deductions = Net Income

_____ − _____ = _____

To Compute Tax:

Net Income × Tax Rate = Tax

_____ × _____ = ___

House Title

The last person listed below is hereby the owner of house #_____. Each time the house is sold, the new owner must register his or her name on this title form. This may require a fee payable to the title recorder.

Date	Signature of New Owner	Signature of Title Recorder

Coke Ticket

Holder may drink a coke in class.

Computer Pass

Good for one free time on the computer.

Homework Ticket

Holder may miss one homework assignment.

Library Pass

Good for free time in the library.

Office Ticket

Holder may work in the school office.

Lunch Ticket

Holder may eat lunch with the teacher.

Recess Pass

Good for extra recess time.

Desk Ticket

Holder may move desk anywhere in the room for one day.

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's
Initials _____

Insurance Policy

Type of Policy _____ Date _____

Coverage: Covers all costs minus deductibles.

Deductible _____ Policy Expires _____

Insurance Agency _____ Agent's Initials _____

Other terms of the policy:

Buyer Signature _____

Rental Contract

Date _____

I promise to rent house number _____ from _____ for at least _____ weeks, beginning on the above date. I will pay a rent of _____ per week.

Other terms of the contract:

Signature of Renter _____

Stock Certificate

_____

_____ Shares

Price per share — Buy _____

Price per share — Sell _____

Profit or Loss _____

Owner's Signature _____

Stockbroker's Initials _____

Stock Certificate

_____

_____ Shares

Price per share — Buy _____

Price per share — Sell _____

Profit or Loss _____

Owner's Signature _____

Stockbroker's Initials _____

Indiana Department of Education
Division of Curriculum

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